



CITY AND COUNTY OF NEWCASTLE-UPON-TYNE.

THIRTY-EIGHTH

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH.

ON THE

Sanitary Condition of the City,

WITH

TABULAR RETURNS

OF THE

SICKNESS AND MORTALITY

DURING THE YEAR 1910.

Newcastle-upon-Tyne :
EASEY & BEST, PRINTERS, 142, PILGRIM STREET.

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TO ALD. SIR HENRY W. NEWTON, J.P., L.F.P.S., CHAIRMAN OF
THE SANITARY COMMITTEE OF THE CORPORATION OF NEW-
CASTLE-UPON-TYNE.

SIR,

Herewith I beg to submit to you my Thirty-Eighth Annual Report, viz., that for the year 1910.

The *Death-rate* (uncorrected) of Newcastle from "All Causes" during the year was 14·9 per 1,000 population, being the lowest on record. (See page 11.) Details as to the general mortality in the different Registration Sub-districts will be found on pages 80-83. The Death-rate (uncorrected) from the seven "Chief Zymotic Diseases," *i.e.*, Smallpox, Measles, Scarlet Fever, Diphtheria and Membranous Croup, Whooping Cough, "Fever," and Diarrhœa* in Newcastle was 1·2 per 1,000 population, which is also the rate for the 77 largest English towns. (See page 86.)

Marriages (see page 13). In the year ended 31st March, 1910, 1,999 marriages were registered in the Registration District of Newcastle-upon-Tyne (which includes the sub-district of Benwell and Fenham, but not that of Walker), an increase of 8 on the number (1,991) during the previous twelve months.

Infant Mortality.—The deaths of infants under one year of age (928) shew a decrease of 12 on the returns for the previous year, and represent a rate of 123 deaths per 1,000 births, the rate for 1909, (viz. 122) being the lowest on record. This relatively low mortality is largely due to the coldness of the summer, together with the reduction in numbers of house and other flies, and the consequent absence of diarrhœa, as also, without doubt, to the continued unremitting attention of the Superintendent of Midwives and the two Health Visitors. It is of interest to note that rather more than half the deaths under this head occur during the first

* Dysentery, Epidemic and Zymotic Enteritis, and Intestinal Catarrh included.

three months of life, while one-third of the total are due to prematurity, accidents of child-birth, or congenital defects. See pages 13, 84 and 85.

The particulars of work done in connection with the Notification of Births Act, 1907, and under the Midwives Act, 1902, are given in the Report of the Superintendent of Midwives (Miss E. Renaud), on pages 33 to 38.

Health Visitors.—Considerable loss of efficiency continues to be felt in the Department as the result of the discharge of four of these officers in 1909. The Medical Officer of Health endeavoured to obtain their re-instatement at the commencement of the financial year, but without success.

Zymotic Diseases caused 331 deaths, against 343 in the previous year. The most prominent of these diseases were Diarrhœa, Measles and Whooping Cough, from which 103, 87, and 79 deaths occurred respectively, against 50, 112 and 70 in the previous year. (See page 12).

The number of deaths from *Scarlet Fever* was 12 against 34 in the previous year. The mortality from that disease per cent. to cases notified was 2·1, as compared with a rate of 4·0 for the year 1909. 574 cases of Scarlet Fever were notified, a decrease of 270 on the returns of the year before.

Enteric (or Typhoid) Fever caused only 9 deaths, against 19 in the previous year. The rate of mortality to cases notified was 14·3 per cent. as compared with 25·7 in the year 1909. The number of cases notified (63) shews a decrease of 11 on the previous year's return. The highly satisfactory decrease in numbers of notifications and deaths under this head is doubtless to a great extent due to improved sanitation consequent on the conversion of a large number of privies and pail-closets into water-closets. (See page 87.)

Diphtheria and Membranous Croup caused 40 deaths, a decrease of 15 on the previous year's return. The rate of

mortality to cases was 9.0 per cent. as against 12.7 in the previous year. The total number of cases notified (443) shews a decrease of 13 as compared with that of the previous year. This gratifying decrease in mortality is justification of the action of the Sanitary Committee in affording a free supply of Diphtheria Antitoxin to the medical practitioners of the city.

Epidemic Cerebro Spinal Meningitis.—Particulars of the occurrence of 4 cases of Epidemic Cerebro Spinal Fever are given on page 19. The notification of this disease (which was temporarily adopted during 1909) was made permanent from December 1st, 1910.

Typhus.—Details of three small localized outbreaks of Typhus are given on pages 22-23. The preventive measures taken by the Health Department were in the highest degree effective, and serve to shew the protective value to the community of such action when applied with promptitude, energy, and thoroughness.

Hospital for Infectious Diseases.—908 patients were admitted to the City Hospital for Infectious Diseases at Walker Gate. This number is the second largest on record. The highest is 1,090 for the year 1909. The proportion of patients removed to Hospital was 82.7 per cent. of the cases notified (excluding Puerperal Fever and Erysipelas). The mortality to cases was 6.69 per cent. Details are given on pages 26-29.

Smallpox and Isolation Hospitals.—It was found necessary to have one or both of these hospitals in practically constant use throughout the year, for the accommodation of Smallpox (3 cases), Smallpox and Typhus contacts, and Chickenpox, and also as a relief to the overfull Scarlet Fever Wards at the City Hospital, Walker Gate.

The number of cases of Infectious Diseases notified by medical practitioners (see page 14) was 1,287 against 1,584 in the previous year.

Phthisis.—The number of cases of Phthisis in poor persons notified during the year under the Public Health (Tuberculosis) Regulations, 1908, is given on page 20. As stated in previous reports, the extension of the notification of Consumption to cases in all classes of society, is greatly to be desired. The action now being taken to deal with this disease, together with certain suggestions for the extension of the system, are set forth in the main body of this Report. See pages 20-22.

One of the most noteworthy sanitary events of the year was the Tuberculosis Exhibition held in the city during the last week of July and the first week of August. For copy of the report thereon, see Appendix B.

The *Uncertified Deaths* registered are 10, against 11 in the preceding year.

Customs and Inland Revenue Act, 1890, s. 26 (2).

Two applications, respecting six houses, for certificates entitling the owners to exemption from inhabited house duty were made during the year. The certificates were not granted.

*Insanitary Dwellings dealt with under the
Newcastle Improvement Act, 1888, sec. 32.*

A total of 57 houses, comprising 70 holdings, including several Cellar Dwellings and a Common Lodging House, have been dealt with during the year. For details see pages 77-78.

BACTERIAL EXAMINATIONS.

The Report of the Bacteriologist (Prof. H. J. Hutchens) is given on page 39.

TUBERCULOUS COWS' MILK SOLD IN NEWCASTLE.

During the year under report, samples of milk purchased in course of delivery or at dairies in the city, and produced at

farms in the undermentioned localities, have been found, on bacterial examination, to contain Tubercle Bacilli, viz. :—

Identifica-
tion No.

94. Chevington.—Sample collected 9th March. Supply of milk stopped by Dairy Company to whom it was consigned on recommendation of Medical Officer of Health pending investigation. Clinical examination of herd shewed one cow with a tuberculous udder, and two others suspicious. Farmer undertook to remove these from herd. Three further samples taken in June and July all negative.
96. Stocksfield.—Sample collected 16th March. Supply stopped by Dairy Company in Newcastle on recommendation of Medical Officer of Health pending investigation. Clinical examination shewed one cow to be tuberculous and it was removed from the herd. Farmer declined to have the Tuberculin test applied. Four further samples taken in June and July, one of which was tuberculous. The Dairy Company agreed to cease taking the milk.
108. Temple Sowerby.—Sample collected 20th April, 1910. After two months delay, the Clerk to the Rural District Council forwarded report on the *sanitary* condition of the byres, &c. at the farm, but made no mention of any examination of the cows. The Dairy Company in Newcastle were therefore recommended to stop the supply, which they did.
- Four further samples taken in June and July were negative.
116. Carlisle.—Sample collected 4th May. The herd was clinically examined, and one doubtful cow was removed. 4 further samples were taken in June and July, and 2 were found to be tuberculous. The Medical Officer of Health of Newcastle therefore recommended the Dairy Company to stop the supply, which was done.

Identifica-
tion No.

126. Kirkbride.—Sample collected 15th June. The Medical Officer of Health for Cumberland had a sample of milk from *one* cow examined bacteriologically. The result was negative as regards tubercle. The Medical Officer of Health for Newcastle then wrote to the Medical Officer of Health for Cumberland pointing out that this threw the onus on the rest of the herd. No further information was received.

203. Newcastle.—Sample collected 14th December. The Veterinary Officer examined the herd and found one cow with a tuberculous udder. The cow was removed from the herd.

The foregoing list of cases illustrates the danger to which the citizens of Newcastle are continually and insidiously exposed of contracting Tuberculosis through the medium of milk sent to them from dairies beyond the jurisdiction of the civic authorities by farmers who make their living by this traffic. In the Annual Report of the Medical Officer of Health for the year 1909, attention was drawn to the fallacious arguments by which the Northumberland and Durham Dairy Farmers Association vainly attempted to defend their objections to the tuberculin test before the Sanitary Committee of the Newcastle Corporation. These efforts were mainly based on three foundations, viz. :—1st, disbelief in the ability of the tuberculin test; 2nd, the desire for compensation for animals found diseased; 3rd, their objection to the Corporation of Newcastle initiating procedure for the detection of the disease on their farms in advance of the action taken by the sanitary authorities, both of neighbouring districts and generally throughout the country. These views put forth by a respectable body of tradesmen can only be regarded as the result of failure to appreciate this serious question from any other than its strictly localized commercial side.

The English are blamed by foreign governments, (United States, Argentine, &c.) for causing Tuberculosis among herds in different parts of the world by sending out diseased high-

bred stock to these countries. Whilst the wide extent of the disease among cattle in Great Britain is generally acknowledged, no attempt has as yet been made by the Board of Agriculture to ascertain the number of animals affected. The only statistics on this matter before the Royal Commission were those obtained from Denmark and Germany.

OTHER WORK OF THE HEALTH DEPARTMENT.

The Report of the Inspector of Nuisances, Common Lodging Houses, &c. (Mr. Wm. Hudspeth), is given on pages 40 to 60.

The Report of the Veterinary Officer and Inspector of Provisions, &c. (Mr. Thos. Parker, F.R.C.V.S.), is given on pages 61 to 75.

Barrasford Sanatorium for Consumptives.

During the twelve months ended 15th January 1911, a total of 74 Corporation patients were admitted for treatment in the Sanatorium. The Reports on these cases are given in Appendix C.

Oaths Act.—Useful sanitary reform was inaugurated when this measure became law. By it the filthy and dangerous practice of “kissing the book” was abolished, and the affirmative form of oath substituted for swearing witnesses, etc., in Courts of Justice.

The Work of the Staff of the Health Department.

As on former occasions, the Medical Officer of Health has the satisfaction to record his acknowledgement of the excellent service rendered to the city by the respective staffs of the divisions of the Department under his charge.

I have the honour to be, Sir,

Your obedient Servant,

HENRY E. ARMSTRONG, D.Hy.,

Health Department,

Medical Officer of Health.

Town Hall,

Newcastle-upon-Tyne,

8th May, 1911.

CITY AND COUNTY OF NEWCASTLE-UPON-TYNE.

REPORT, 1910.

GENERAL STATISTICS.

DURING the 52 weeks ended 31st December, 1910, 7,543 births and 4,252 deaths were registered in the City. The births represent a rate of 26·4 and the deaths a rate of 14·9* per 1,000 of a population of 285,951 at all ages, as estimated by the Registrar General to the middle of the year.

The following is a table of the recorded rates of mortality from "All Causes," and the seven "Chief Zymotic Diseases," for the year under report and previous years:—

RATES OF MORTALITY PER 1,000 POPULATION OF NEWCASTLE-UPON-TYNE.

A.D.				All Causes.	Seven "Chief Zymotic Diseases."		
				Average for the Decade.	Average for the Decade.		
1870	...	...	...	25·4	...	...	3·9
1871	...	...	...	32·2	...	...	9·3
1872	...	...	...	26·3	...	...	4·5
1873	...	...	...	30·1	...	...	6·9
1874	...	...	...	29·2	26·2	...	5·5
1875	...	...	...	26·1		...	3·6
1876	...	...	...	22·7		...	2·6
1877	...	...	...	22·3		...	2·5
1878	...	...	...	23·7		...	4·6
1879	...	...	...	23·5		...	3·9
1880	...	...	...	22·3	23·5	...	3·2
1881	...	...	...	21·7		...	2·6
1882	...	...	...	23·0		...	3·3
1883	...	...	...	25·4		...	4·3
1884	...	...	...	23·5		...	3·2
1885	...	...	...	26·0		...	4·4
1886	...	...	...	22·2		...	2·5
1887	...	...	...	25·2		...	3·3
1888	...	...	...	20·5		...	1·4
1889	...	...	...	25·0		...	3·0
1890	...	...	...	26·2	20·6	...	2·1
1891	...	...	...	23·6		...	2·5
1892	...	...	...	19·5		...	1·5
1893	...	...	...	20·9		...	2·3
1894	...	...	...	18·0		...	1·9
1895	...	...	...	20·0		...	2·1
1896	...	...	...	18·4		...	1·8
1897	...	...	...	18·7		...	1·6
1898	...	...	...	20·9		...	2·2
1899	...	...	...	20·2		...	1·6
1900	...	...	...	19·1	18·3	...	1·2
1901	...	...	...	21·2		...	2·2
1902	...	...	...	19·6		...	1·6
1903	...	...	...	18·6		...	1·1
1904	...	...	...	18·8		...	1·5
1905	...	...	...	17·4		...	1·3
1906	...	...	...	18·0		...	2·1
1907	...	...	...	16·8		...	1·4
1908	...	...	...	17·3		...	1·3
1909	...	...	...	15·9		...	1·2
1910	...	...	...	14·9	...	...	1·2†

* This return includes all deaths in the City Hospitals for Infectious Diseases. By deducting the deaths in the Royal Victoria Infirmary (347) and the Fleming Memorial Hospital (48) of non-citizens the rate is reduced to 13·5.

† Deducting deaths from diseases not ordinarily notifiable (Measles, 87; Whooping Cough, 79; Diarrhœa, 103), the rate is 0·2.

The most fatal Zymotic diseases have been Diarrhœa, Measles, and Whooping Cough, from which 103, 87, and 79 deaths respectively are returned.

Diarrhœa,
Measles,
and
Whooping
Cough.

INFANT MORTALITY.

The number of Infants dying before the completion of the first year of life is 928, as compared with 940, 1,169, and 1,009, respectively in 1909, 1908, and 1907.

Infant
Mortality.

REGISTRATION SUB-DISTRICTS.				Deaths of Children under 1 year of age.		Rates per cent. of Deaths under 1 year to Births registered.	
				1910.	1909.	1910.	1909.
Benwell	...	...	...	100	101	11·0	11·1
Elswick	...	...	...	158	195	10·7	12·6
St. Nicholas'	...	...	...	118	115	12·7	11·8
St. Andrew's	...	...	...	119	109	16·6	14·5
All Saints'	...	...	...	121	113	12·8	11·9
Byker	...	...	...	242	230	11·8	11·2
Walker	...	...	...	70	77	13·4	15·4
City	...	...	...	928	940	12·3	12·2

UNCERTIFIED DEATHS DURING THE YEAR 1910.

10 deaths have been registered for which no proper medical certificate has been given or inquest held, as compared with 11 during the previous year.

Uncertified
Deaths.

MARRIAGES.

The number of marriages registered in Newcastle-upon-Tyne (Superintendent Registrar's district†), during each of the past ten years (1901-1910), is as under :

Marriages.

Year ended March 31.	Number of Marriages.	Year ended March 31.	Number of Marriages.
1901	2,077	1906	2,164
1902	2,277	1907	2,300
1903	2,167	1908	2,018
1904	2,133	1909	1,991
1905	2,181	1910	1,999

† Includes the old Municipal area and the Townships of Benwell and Fenham, which were incorporated in November, 1904, but does not include the Registration Sub-District of Walker, as it forms part of the Sub-District of Longbenton. The figures for Walker are not given separately in the returns of the Registrar-General.

INFECTIOUS DISEASE INQUIRY.

CASES OF INFECTIOUS DISEASE KNOWN TO THE HEALTH DEPARTMENT.

Notification
of Infectious
Disease.

During the year under report the following cases of Infectious Disease have been made known to the Medical Officer of Health by medical practitioners and otherwise.

					CASES KNOWN TO THE HEALTH DEPARTMENT.	
					1910.	1909.
Smallpox	...	...	...	...	3	—
Scarlet Fever	...	...	...	...	574	844
Diphtheria (including Membranous Croup)	...	...	...	...	443	456
Typhus	...	...	..	...	10	6
Enteric (or Typhoid) Fever	...	...	...	...	63	74
Simple Continued Fever	...	...	...	...	1	—
Puerperal Fever	...	...	...	...	4	11
Erysipelas	...	...	...	...	182	169
Epidemic Cerebro-Spinal Meningitis	...	...	...	...	7	24
TOTAL	...	...	...	...	1,287	1,584

Infectious
Diseases in
the respec-
tive Wards
of the City.

The following Table shows the different diseases in the respective Wards of the City:—

WARDS.				Smallpox.	Typhus.	Continued Fever.	Scarlet Fever.	Diphtheria (including Membranous Croup).	Enteric (or Typhoid) Fever.	Puerperal Fever.	Erysipelas.	Epidemic Cerebro-Spinal Meningitis.	TOTAL.
Benwell	...	...	...	...	...	...	25	32	2	...	20	3	82
Fenham	...	...	...	...	...	...	25	24	1	...	9	...	59
Elswick East	...	...	...	...	...	...	22	4	1	...	10	...	37
Elswick North	...	...	...	...	...	...	16	23	1	...	8	1	49
Elswick South	...	...	6	...	...	...	42	38	3	1	13	...	103
Arthur's Hill	...	...	...	...	...	...	40	41	4	1	32	1	119
Westgate North	...	...	...	...	...	...	7	12	...	...	6	...	25
Westgate South	...	...	...	...	...	...	10	6	1	...	6	...	23
St. Andrew's North	...	...	...	...	...	...	40	15	3	2	7	...	67
St. John's	...	...	...	...	...	...	1	...	...	...	...	...	1
St. Nicholas'	...	...	...	...	...	...	2	...	...	...	1	...	3
All Saints' West	...	...	...	...	...	...	1	...	5	...	2	1	9
All Saints' East	...	3	1	1	...	...	26	22	1	...	15	...	69
All Saints' North	...	...	3	...	...	...	29	11	...	...	7	...	50
St. Andrew's South	...	...	...	...	...	...	...	4	...	...	4	...	8
Jesmond	...	...	...	...	...	...	64	58	...	...	3	1	126
Heaton	...	...	...	...	...	...	84	50	8	...	9	...	151
Byker	...	...	...	...	...	...	114	51	22	...	24	...	211
Walker	...	...	...	...	...	...	26	52	11	...	6	...	95
City	...	...	...	3	10	1	574	443	63	4	182	7	1287

RETURN SHOWING THE NUMBER OF HOUSEHOLDS, &C., IN WHICH
INFECTIOUS DISEASE WAS NOTIFIED DURING THE YEAR 1910.

DISEASES.	HOUSEHOLDS WITH						Public Institu- tions. *	TOTAL.	No. of Infected Households &c.
	Single Cases.	2 Cases each.	3 Cases each.	4 Cases each.	5 Cases each.	6 Cases each.			
Smallpox	3	...	...	...	...	...	...	3	
Scarlet Fever ...	365	61	19	3	1	...	6	455	
Diphtheria (including Membranous Croup)	327	34	...	3	1	...	5	370	
Enteric (or Typhoid) Fever	40	3	2	...	...	1	2	48	
Continued Fever ...	1	...	...	...	...	...	...	1	
Puerperal Fever ...	1	...	...	...	...	...	2	3	
Erysipelas	144	3	...	...	...	...	3	150	
Epidemic Cerebro- Spinal Meningitis ...	6	...	...	...	...	...	...	6	
Typhus	1	...	1	...	...	1	...	3	
TOTAL	888	101	22	6	2	2	18	1039	

* See page 25.

Scarlet Fever in relation to School Attendance.— Of the house-
holds infected with Scarlet Fever, 388 contained scholars of one
or other of 62 different schools in the City. Scholars of 15 of
the largest elementary schools resided in upwards of 10 of such
households during the year, the largest number of such house-
holds from which children attended any one school being 25.

Scarlet
Fever in
relation to
School
Attendance.

In one school there was infection in the households of its
scholars during ten months of the year, in five schools during
nine months, and in seven schools during eight months.

Rate of Scarlet Fever and Diphtheria in City Council Schools.—
Through the courtesy of the Secretary to the Education Committee,
Mr. A. C. Coffin, who has furnished the average daily attendance
at each of the Council Schools of the City, it has been possible
to prepare the following statement, shewing the percentage of

Rate of
Scarlet
Fever and
Diphtheria
in Council
Schools.

households of scholars in which Scarlet Fever and Diphtheria was notified to the average number of scholars in each school:—

School.	Per cent. of Households infected with				
	Scarlet Fever.		Diphtheria.		
Arthur's Hill	0·4	0·5
Atkinson Road...	0·6	0·6
Bath Lane	0·2	0·5
Bentinck	0·4	0·7
Blenheim Street	1·3	0·2
Bolam Street	1·0	0·8
Chillingham Road	1·2	0·3
Canning Street	0·5	1·3
Clarence Street	0·7	0·7
Diana Street	—	—
Denton Road	—	—
Delaval	0·4	1·1
Elswick Road	0·9	1·3
Elswick Works	1·3	0·9
Heaton Park Road	1·6	1·2
Mitford Street	1·5	0·1
North Heaton	0·9	0·3
North View	1·7	0·9
Ouseburn	1·1	0·2
Raby Street	0·8	0·5
Royal Jubilee	0·2	0·6
Shieldfield	0·4	0·6
South Benwell	0·4	1·0
Spital Tongues	4·0	0·4
Saint Peter's	1·3	0·4
Sandyford Road	1·1	0·6
Todd's Nook	0·8	0·8
Victoria Jubilee	0·9	0·6
Walker East	0·6	3·3
Walker West	0·4	0·5
Walker Gate	0·7	—
Welbeck Road	1·8	0·8
Westmorland Road	1·2	0·3
Westgate Hill	1·3	0·9
West Jesmond	2·3	1·0
Wingrove	1·5	0·3

The Medical Officer of Health continues to inform principals of schools of the presence of infectious diseases in the homes of their pupils, as also of the cessation of infection. A daily return of cases in the homes of scholars is also forwarded to the Principal Medical Officer of the Education Committee.

Diphtheria in Walker.—52 cases occurred in this district during the year, 46 separate households being affected. The cases were spread over the whole year, being somewhat more numerous in the autumn, as is shown in the subjoined table:—

Notifications received.

Month ...	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Cases...	1	4	5	2	3	5	5	7	6	6	7	1	52

7 cases occurred in Church Street, 6 each in Welbeck Road, Middle Street, and White Street, and 5 in Byker Street.

19 cases occurred among the scholars of Walker East School, and 12 among other members of the households of scholars attending this school. The school has been carefully inspected on several occasions in conjunction with the Principal School Medical Officer, who took many swabs from scholars, and has since made various valuable recommendations to the Education Committee, referring: notably to the use in common of pens, pencils, plasticine, towels, etc.

17 households obtained their milk from a common source, but nothing was found which could cause the dairy to be suspected as a source of infection.

Supply of Diphtheria Antitoxin.—In order that the sufferers from Diphtheria might receive this remedy at the earliest possible moment, the Sanitary Committee decided to supply Antitoxin free to medical practitioners for use in cases occurring within the city, commencing from 23rd April, 1910. Each medical man who signifies his willingness to use the serum is supplied with one or more doses to keep by him in readiness for emergency.

Distribution was made as follows:—

Number of medical practitioners who made application for Antitoxin	...	...	...	...	...	...	...	85
Number of phials of Antitoxin supplied	...	...	...	...	...	...	...	262
Number of cases of Diphtheria notified between 23rd April and 31st December	...	...	...	...	...	...	...	286
Number of cases of Diphtheria removed to Hospital	...	...	...	...	...	...	...	216

Number of Hospital cases in which Antitoxin was injected prior to admission	98
Estimated number of doses administered to cases which remained at home, or to contacts as prophylactic ...	64
Estimated number of phials, as yet unused, in the posses- sion of medical practitioners	100

It is yet too early to draw emphatic conclusions from this experiment, but some striking facts appear in connection with the laryngeal cases of Diphtheria admitted to hospital. These are shown in the following table:—

LARYNGEAL CASES OF DIPHTHERIA.			
	Number.	Case Mortality.	Proportion requiring Tracheotomy.
1909	58	22·4%	39·8%
1910	43	11·6%	37·0%

Infectious Disease in Relation to Milk-supply.—The source of the milk supply was ascertained in every case of fever. Only once was there reason to suspect that the milk was responsible for the conveyance of infection.

During the months of April and May there occurred 17 cases of Scarlet Fever in 12 households supplied by a particular dairy. This is one of the cleanest and best kept in the city, and, although most thorough and careful inspections of the employees, animals, and premises were made by the Medical Officer of Health, the Veterinary Inspector, and the Special and District Inspectors, nothing whatever was discovered that might give rise to or convey infection.

Puerperal Septicæmia.—Inquiries were made concerning 4 cases, which were notified as follows:—Workhouse 1, Royal Infirmary 2, Elswick district 1. One case had been sent to the Royal Infirmary from Gateshead; of the remaining 3, 2 occurred in the practices of medical men, and 1 had been attended by a midwife. Full enquiry was made into each case.

Epidemic Cerebro-Spinal Meningitis.—7 notifications of this disease were received during the year; 4 proved to be true cases, viz., 1 each month in January, May, July, and November. All four patients died. There was no discoverable connection between them.

The particulars are as follows:—

Month.	Patient's		Occupation,	Home District.	Place of Death.	Whether bacteriologically verified.
	Sex.	Age.				
January ...	M.	15	Errand boy.	Benwell.	Home.	Yes.
May ...	F.	19	Housewife.	Benwell.	City Hospital.	Yes.
July ...	M.	26	Miner.	Benwell.	Home.	Yes.
November	F.	21	Clerk.	Elswick.	Royal Infirmary.	Yes.

The first 3 cases were visited by the Assistant Medical Officer of Health. On the diagnosis being established, in only one instance was it possible to remove the patient to the City Hospital.

37 contacts were kept under observation for a period of 21 days each. No spread of infection occurred among these.

On the recommendation of the Sanitary Committee, the Council declared Epidemic Cerebro-Spinal Meningitis a notifiable disease under Sec. 6 of the Infectious Diseases Notification Act until further notice. This was agreed to by the Local Government Board, the arrangement coming into force from December 1st, 1910.

Tuberculosis.—Since the discovery of the Tubercle Bacillus 30 years ago, and the knowledge that the disease is preventable, a most marked improvement has taken place in the death-rate from Consumption. From 2·4 deaths per 1,000 population in 1889, the mortality from Phthisis in Newcastle has declined steadily to 1·16 in 1910. Many influences have been at work in bringing about this great saving of life; among the chief of which may be mentioned the higher standard of housing now insisted upon, and the greater cleanliness of the city and its inhabitants; the gradual disappearance of the old fear of fresh air; and last, but

by no means least, the improvement in wages, and the better feeding and power of resistance to disease of the poorer classes, who suffer most severely from Phthisis.

Special measures are adopted by the Health Department in the endeavour to stamp out the disease entirely. These include the visiting (at least once a month) of all poor persons resident in the city concerning whom notification has been received under the Public Health (Tuberculosis) Regulations, 1908. Cleanly and careful habits are inculcated, disinfectants are supplied, and disinfection of clothing, bedding, etc., and of rooms after removal, or after the death of the patient, is carried out. In some cases paper handkerchiefs and spittoons are provided. The scope of these Regulations is to be extended considerably in the current year, so that information of a much larger proportion of the persons suffering from Phthisis will be available to the Department.

During the year 1910 the following cases were notified under the Public Health (Tuberculosis) Regulations, 1908 :—

FORM A.	FORM B.	FORM C.	FORM D.	
Workhouse Inmates.	Persons residing in the City, reported by Poor Law Medical Officers.	Persons reported by Superintending Poor Law Officer, as leaving the Workhouse.	Change of address, reported by Relieving Officer.	TOTAL.
74	78	73	8	233

1,582 visits were paid to the homes of these patients by the Special Inspectors.

20 beds are maintained by the Corporation at the Barrasford Sanatorium for the treatment of suitable early cases of the disease occurring among the poorer citizens. During 1910 there were 119 applicants for treatment, of whom 74 were passed as suitable and admitted to the institution. (See Appendix C.)

But what becomes of the advanced cases? They remain in the town working till absolutely unable to do so any longer, and

after lingering on at home, die. Meanwhile they are acting as *foci* for the wholesale distribution of virulent infection. A small proportion drift into the Workhouse Infirmary to end their days. They at least are rendered harmless during the latter part of their illness. There is no provision available for the segregation of the other cases.

No means exist in this city for prohibiting spitting in public places—a serious lack.

A most laudable effort to teach the people how to avoid receiving or disseminating infection was made by the Sanitary Committee in inviting the National Association for the Prevention of Consumption to allow their fine exhibition to visit Newcastle. Every possible effort was made to ensure successful results, and the Committee have no reason to doubt that their object was attained. By close co-operation with the Education Committee, Friendly Societies, Charities, Trade Unions, and all persons and associations interested in work among the poor, full advantage of the exhibition and lectures was taken by those whom it was desired to reach. It is difficult to estimate results, but there is no doubt that this enterprise has had a remarkable effect in reaching the working classes.

To teach people to protect themselves is to act on right lines, and much is now being done in the schools, and by the various societies, to attain this object. In passing, it is not out of place to mention here that the general tone of the poorer classes in regard to domestic cleanliness has received a very pronounced stimulus in the institution of medical inspection of school children. The Health Visitors report, *inter alia*, that they seldom see any of the severely verminous conditions in children that used so commonly to prevail; whilst cleanliness of the other members of the household and of the house itself follows naturally upon the higher standard required of the children. (For further particulars respecting the Tuberculosis Exhibition see Appendix B.)

What is still required is the establishment of a system by means of which incipient cases of the disease may be sought out

in the families of the patients, and the dangerous advanced cases removed to some institution where they can do no harm.

The following is the distribution, as regards housing, of 278 of the 331 cases of Phthisis which died during the year.

These are the cases which died in their own homes, the remainder dying in various institutions :—

No. of Rooms in House.	Approximate Rent.	No. of Deaths.	Average number of Houses among which there occurred one death.
1	2/- to 3/- per week.	25	181
2	2/9 to 6/- per week.	112	124
3 and 4	3/- to 8/- per week.	126	177
More than 4.	£20 to £30 per annum.	15	686
All classes of dwelling ...		278	183

Typhus.—10 cases, in three distinct outbreaks, occurred during the year.

In the first were 6 cases in one family, in Ramshaw Street; these, as connected with an outbreak in the latter part of 1909, were described in the Annual Report for that year.

The second outbreak consisted of an isolated case in Cut Bank. The patient was a carter, and the source of the disease was not ascertained.

The third outbreak occurred in the family of an itinerant musician of irregular habits, resident in a cellar dwelling in Rosedale Street. Three individuals were infected, the virus in all probability having been conveyed by the musician from some outside source.

All 10 cases were removed to the City Hospital, Walker Gate, where they recovered.

57 contacts were kept under daily observation for three weeks, 4 being segregated for a fortnight in the Isolation Hospital, Town Moor.

The following are the details of the cases:—

Date.	Number of Patients.	Sex.	Age.	District.
Jan. 3 ...	6	M. F. F. F. F. M.	48 46 16 13 12 5	Elswick.
June 27 ...	1	M.	23	All Saints.
Oct. 15 ...	3	F. F. M.	32 6 4	Shieldfield.

Smallpox.—3 cases, of whom 1 died, occurred during the month of February, the source of infection being a grain ship from the Black Sea, the captain of which was discovered in Whitley Bay to be suffering from well-marked Smallpox a day or two after the ship's arrival in the Tyne. The eruption was believed by him to be due to "grain fever."

Fourteen days later a quayside labourer, who had assisted in unloading cargo from this ship, developed Smallpox. Four days after this a storeman, who had been employed about the same ship, also developed the disease. On the following evening (Saturday) a case was discovered in a large model lodging-house which accommodates 600 men. This last was a Brazilian seaman, who, although contact with affected persons could not be actually discovered, was living in the infected district.

In connection with this case considerable difficulty was experienced in dealing with contacts, the house being full, not only of lodgers, but also of casual visitors. Names and addresses, however, were obtained, and all who refused vaccination were followed up and kept under close surveillance for a fortnight, many going on to other towns, warning of their destination being sent forthwith to the respective Medical Officers of Health.

Altogether there were 336 contacts with one or other of the 3 cases; of these, 13 were sent to the Isolation Hospital

for observation, and 209 were vaccinated, but this latter was accomplished only on an undertaking being given to compensate the respective persons for any loss of earnings which might result from the operation. In all, some £12 was paid on this account alone, a further sum of £16 being paid to contacts detained in the Isolation Hospital.

Fortunately the prompt handling of the outbreak completely checked it, and no further cases occurred.

The following are the details of the cases :—

Date of Notification.	Sex.	Age.	Occupation.	State as to Vaccination.	Type of Disease.	Result.
Feb. 14...	M.	39	Quayside labourer.	3 scars, total area, $\frac{1}{2}$ square inch. Infancy.	Mild discrete.	Recovered.
Feb. 18...	M.	61	Storeman, Quayside.	1 scar, $\frac{1}{8}$ square inch. Infancy.	Severe confluent.	Died.
Feb. 19...	M.	25	Seaman, Brazilian Navy.	1 scar, $\frac{1}{16}$ square inch. Infancy.	Mild discrete.	Recovered.

In consequence of the growing neglect of Vaccination, through the excuses available under the ill-advised exemption clauses of the Acts of 1898 and 1907, there is being created a corresponding increase in the proportion of unprotected persons, the presence of whom in the community is a serious menace to the safety of all, in the event of Smallpox appearing in this city. By the courtesy of the Clerk to the Guardians, the Medical Officer of Health is enabled to append particulars of infant vaccination in Newcastle, during the past six years. (Walker, which belongs to the Tynemouth Rural area for registration purposes, is not included).

Year.	Births Registered.	Successful Vaccinations.	Unsuccessful Vaccinations.	Exemption Certificates.	
				Number.	Percentage to Total Births.
1905	7,958	7,264	27	65	0·8
1906	7,721	6,733	28	92	1·2
1907	7,610	6,702	16	94	1·2
*1908	7,747	6,414	20	449	5·8
1909	7,180	5,667	30	517	7·2
1910	7,023	5,532	22	683	9·7

* Vaccination Act, 1907, came into force.

During the year under report, 10 Smallpox "contacts" from other towns were kept under observation at their homes in the city.

13 Cholera "contacts" from other towns were also kept under observation.

Infectious Disease Inquiry and Disinfection.—1,286 cases of notifiable infectious disease have been inquired into by the Special Inspectors, and the houses or rooms connected therewith disinfected. This does not include 440 cases of Tuberculosis, Measles, &c., in which disinfection of the infected premises was carried out. The bedding and other infected articles were removed to the Disinfecting Station, and, after purification, returned to the owners.

INFECTIOUS CASES NOTIFIED IN PUBLIC INSTITUTIONS, &c.

INSTITUTIONS, &c.	Scarlet Fever.	Enteric Fever.	Diph- theria.	Ery- sipelas.	Puerperal Fever.	TOTAL.
Royal Victoria Infirmary ...	5	...	4	4	2	15
Fleming Memorial Hospital, North Road... ..	1	...	17	...	...	18
Children's Hospital, City Road ... ..	...	...	3	...	...	3
Royal Victoria Asylum for the Blind	3	...	...	...	...	3
Workhouse	2	...	4	27	1	34
City Hospital for Infectious Diseases.. ...	...	3	3	...	...	6
Throat and Ear Hospital ...	1	...	...	...	...	1
H.M. Prison ... ..	...	...	...	1	...	1
Military Barracks	1	2	...	...	...	3
Total	13	5	31	32	3	84*

* Does not include any cases belonging to the City which could properly be assigned to their homes

City
Hospital for
Infectious
Diseases.

CITY HOSPITAL FOR INFECTIOUS DISEASES.*

908 patients have been treated at the City Hospital for Infectious Diseases at Walker Gate during the year 1910.

The cases were as follows:—

Admitted as		After observation proved to be																								
	No. of Cases.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Typhus.	Influenza.	Epidemic Cerebro- Spinal Meningitis.	Pneumococcal Meningitis.	Measles.	Rotheln.	Tonsillitis.	Pharyngitis.	Stomatitis.	Foreign body in Larynx.	Pneumonia.	Phthisis.	General Tuberculosis.	Puerperal Septicæmia.	Syphilis.	Erythema.	X Ray Rash.	Burn Rash.	Nephritis.	Cervical Hæmatoma.	Enteritis.	
Scarlet Fever	...	485	453	...	...	...	...	...	5	5	2	...	...	...	...	...	...	...	...	16	1	1	1	1	...
Diphtheria	...	355	12317	...	...	...	...	...	5	...	11	1	2	1	3	...	1	1	1	...	...	...	...	...	...
Enteric Fever	...	57	...	47	1	1	...	2	...	1	...	...	...	...	2	1	1	...	...	...	...	...	...	...	1
Typhus	...	9	...	...	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Epidemic Cerebro- Spinal Meningitis	2	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL	908	465317	47	10	1	1	3	10	6	13	1	2	1	5	1	2	1	1	16	1	1	1	1	1	

* For other details, see pages 27 and 29.

ADMISSIONS TO, AND DEATHS AT, THE CITY HOSPITAL FOR INFECTIOUS DISEASES
(OTHER THAN SMALLPOX) DURING THE YEAR 1910.

DISEASES.	ADMISSIONS.												DEATHS.													
	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Scarlet Fever	44	39	31	29	30	34	29	51	58	50*	35	35	465	1	2	1	1	1	...	1	...	1	1	...	2	11
Diphtheria	18	46	36*	27	19	19	21*	22	29	29	28†	23	317	...	4	7	3	2	1	1	2	5	1	2	1	29
Enteric Fever	3	7	5	5†	3	3	...	1	...	5	9*	6||	47	1	1	...	...	...	...	...	...	...	1	2	...	5
Typhus	6	...	...	...	...	1	...	...	...	3	...	...	10	...	...	...	...	...	...	...	...	...	...	...	...	...
Influenza . . . . .	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Epidemic Cerebro-Spinal Meningitis . . . . .	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...
Pneumococcal Meningitis . . . . .	...	...	2	...	...	...	1	...	...	...	...	...	3	...	...	...	...	...	...	1	...	...	...	...	...	1
Measles. . . . .	...	...	...	...	2	2	1	...	1	2	1	1	10	...	...	...	...	1	...	1	...	1	...	1	...	4
Rotheln . . . . .	...	1	...	1	...	...	...	1	1	1	1	1	6	...	...	...	...	...	...	1	...	...	...	...	...	...
Tonsillitis	3	...	1	...	1	1	...	1	1	5	1	...	13	...	...	...	...	...	...	...	...	1	...	...	...	...
Pharyngitis. . . . .	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Stomatitis . . . . .	...	...	...	...	...	...	...	...	2	...	...	...	2	...	...	...	...	1	...	...	...	1	...	...	...	1
Foreign Body in Larynx . . . . .	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia. . . . .	...	...	1	...	...	...	1	1	1	...	...	1	5	...	...	1	...	...	...	...	...	...	...	...	...	1
Phthisis. . . . .	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
General Tuberculosis	1	1	...	...	...	...	...	...	...	...	...	...	2	1	1	...	...	...	...	...	...	...	...	...	...	2
Puerperal Septicæmia . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	1
Syphilis . . . . .	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Erythema	2	1	2	1	2	1	2	3	...	1	1	...	16	...	...	1	...	...	...	...	...	...	...	...	...	1
X Ray Rash . . . . .	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	1	...	...	...	...	1
Burn Rash . . . . .	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	1
Nephritis . . . . .	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Cervical Hamatoma . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteritis . . . . .	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL	77	97	79	64	59	61	58	82	92	96	76	67	908	3	9	10	4	6	1	4	3	8	4	5	3	60

* Includes 1 Probationer Nurse.

† Includes 1 Ward Maid

|| includes 1 Charge Nurse.

7 Members of City Hospital Staff in all.

RATE PER CENT. OF CASES REMOVED TO HOSPITAL TO CASES NOTIFIED
IN 1890, AND DURING EACH OF THE PAST TEN YEARS.

	1890	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910
Scarlet Fever	18.4	40.0	41.9	44.3	57.1	50.1	53.2	64.8	73.6	78.6	84.5
Diphtheria	8.3	28.8	24.1	24.5	35.8	36.8	37.4	51.4	68.1	76.1	80.1
Enteric Fever	38.9	44.7	50.9	58.7	53.3	52.0	78.6	62.1	82.9	82.3	90.5
All cases of the above } together with Contin- } ed and Typhus Fever }	21.3	39.7	42.0	45.1	46.0	47.8	56.6	59.9	72.6	78.0	83.0

From the above table it will be seen how the proportion of infectious cases removed to Hospital continues to increase.

MORTALITY OF CASES TREATED IN HOSPITAL AS COMPARED WITH CASES TREATED
AT HOME, DURING 1910.

DISEASE.	HOSPITAL.			HOME.		
	Total Cases.	Deaths.	Case Mortality per cent.	Total Cases.	Deaths.	Case Mortality per cent.
Scarlet Fever	465	11	2.37	89	1	1.1
Diphtheria	317	29	9.15	88	11	12.5
Enteric Fever	47	5	10.64	6	4	66.6

Diphtheria Cases in Hospital.—Of the 317 patients sent to Hospital, 251 were faucial or pharyngeal cases, and of these 22, or 8.8 per cent., died. 43 were laryngeal or tracheal, and of these 5, or 11.6 per cent., died. Tracheotomy was performed on 16 patients, of whom 4, or 25.0 per cent., died. 24 of the cases were non-clinical, being merely “carriers” of the diphtheria bacillus; most of these were admitted from the Fleming Memorial Hospital, and 2 died from diseases other than Diphtheria. It is of interest to note that of 22 cases in which the nasal passages were involved, no less than 11 died.

Of the 29 deaths, 8 were of patients practically moribund on admission, who died within 24 hours; 2 of these were operated upon, but too late to save life. 2 further deaths were from diseases other than Diphtheria (see above).

Tracheotomy was performed also upon 4 cases sent in as Diphtheria, but found to be suffering instead from Laryngitis accompanying Measles (3), of whom 1 died, and Syphilis (1), which recovered.

As hitherto, the patients sent to Hospital came, generally speaking, from much less favourable surroundings than those treated at home, and suffered from a severer type of the disease.

Antitoxin is administered to all cases of Diphtheria admitted to Hospital which have not received the remedy at home. Owing to the free supply of Antitoxin to private medical practitioners, considerably less has been used at the Hospital, and patients receive the treatment earlier than previously.

Cases of Mixed Infection.—42 patients sent into Hospital were found on admission to be suffering from two or more distinct infectious diseases, as follows:—

Scarlet Fever and Diphtheria	...	...	...	3
Scarlet Fever and Chickenpox	...	...	...	5
Scarlet Fever and Whooping Cough	...	...	...	7
Scarlet Fever and Measles	...	...	...	4
Scarlet Fever, Measles, and Chickenpox	...	...	...	1
Diphtheria and Scarlet Fever	...	...	...	5
Diphtheria and Measles	...	...	...	3
Diphtheria and Ringworm	...	...	...	4
Diphtheria and Chickenpox	...	...	...	1
Diphtheria, Chickenpox, and Scarlet Fever	...	...	...	2
Diphtheria and Tuberculosis	...	...	...	2
Diphtheria and Chorea	...	...	...	1
Diphtheria and Whooping Cough	...	...	...	3
Measles and Whooping Cough	...	...	...	1

Expenses of Maintenance.—Of the patients admitted, the expense of maintenance is charged as under:—

				Cases.
To the Newcastle Sanitary Authority	...	...	...	904
To private guarantors	...	...	...	4
Total	...	...	...	<u>908</u>

Smallpox and "Contact" Isolation Hospitals.—On the occurrence of Smallpox in February, the Isolation Hospital had to be opened on the shortest possible notice, and a suitable caretaker hastily engaged. Owing to unpreparedness in respect of the latter, the Medical Officer of Health was considerably hampered, at a most critical time, in dealing with the outbreak.

3 cases of Smallpox were accommodated in the Smallpox Hospital, and 25 Smallpox "Contacts" in the Isolation Hospital. The following table shows the admissions during the year in the two institutions :—

DISEASE.	NUMBER.	PERIOD OF ACCOMMODATION.
Smallpox	3	Feb. 14—Mar. 19.
Smallpox ("Contacts")	25	Feb. 14—24.
Chickenpox (for observation)	4	June 23—27.
Typhus "Contacts"	4	June 27—July 11.
Scarlet Fever Convalescents ("overflow" from Walker Gate)	82	Sept. 23—Dec. 2.
TOTAL ...	118	

INFECTED ARTICLES DESTROYED AND REPLACED BY THE HEALTH DEPARTMENT.

	1909.	1910.
Half Straw Mattresses	84	52
Flock Beds	2	4

INFECTED ARTICLES PURIFIED IN THE DISINFECTING APPARATUS AT THE CITY HOSPITAL FOR INFECTIOUS DISEASES, WALKER GATE, AND THE ISOLATION HOSPITAL, TOWN MOOR, DURING THE YEAR 1910.

ARTICLES FROM CITY.		ARTICLES—HOSPITAL PROPERTY.	
1909.	1910.	1909.	1910.
26,942	20,353	6,750	3,594

Food Poisoning.—During the month of December there occurred two outbreaks of meat poisoning, viz., one from tinned Australian mutton, and one from tinned salmon.

In the first outbreak, which centred round a small general shop in the St. Peter's District, 19 persons, of whom one died, were affected. Only one tin, a 6 lb. one, appeared to have been contaminated; from a scrap of its unconsumed contents an organism was isolated which corresponded with one obtained from the body of the fatal case, and which belonged to the group of bacteria commonly associated with cases of food poisoning.

In the second outbreak, a family of 5 persons, living in Walker, was affected after the consumption of a 1 lb. tin of salmon. All recovered, though seriously ill. No typical organism was found in this instance.

The following report and instructions regarding precautionary measures was prepared.

POISONING FROM TINNED MEAT.

In accordance with the instruction of the Sanitary Committee, the Medical Officer of Health reports as follows:—

The larger proportion of preserved cooked meat is imported from abroad, the principal sources of supply being the United States, Canada, Australia, and New Zealand, in all of which countries the meat is packed in sealed tins. A smaller amount is prepared in England, much of the home supply being put up in glass or earthenware vessels. Certain less reputable English firms, however, are known to purchase foreign canned meat, which they repack in the glass or earthenware receptacles.

Danger to the consumer may arise under three general heads:—

- (1) *From the absorption of lead from the coating of a badly "tinned" can; from unsuitable "tin," such as "terne-plate," which contains a large proportion of lead, and is readily acted upon by any acidity of the contents of the vessel; or from absorption of lead from solder which has been badly applied and comes into direct contact with the food.*

Metallic poisoning from such sources, however, is of comparatively rare occurrence, and is most frequent in the case of acid-containing substances, such as tinned fruits, lobster, and sardines.

- (2) *From the presence of preservatives in the meat.* Of these, by far the commonest are the compounds of Boron, which, while exerting a

deleterious effect upon the process of digestion, merely hinder the multiplication of harmful germs without destroying them, at the same time masking all signs of decomposition that may actually be present. The use of these is quite unnecessary if the meat be sound and fresh when canned, and prepared under cleanly conditions.

- (3) *From the presence of germs* which cause the formation of highly poisonous products of decomposition known as ptomaines. These are exceedingly virulent and rapid in action, and constitute by far the most serious danger in connection with tinned foods. The presence of these germs may be due originally to the use of unsound meat, to uncleanly conditions in its preparation, to their entry into a defective tin, or to the contamination of the meat in a tin after it has been opened and its contents exposed.

PRECAUTIONARY MEASURES.

The following should be carefully avoided:—

Meat put up in tins of inferior make and finish. It is well known that only a poor class of meat is put into poor tins.

Tins that bulge and emit a hollow sound when tapped, or which splash when shaken, or tins which show signs of having been knocked about.

Tins, the contents of which show any discolouration, sloppiness (especially in the jelly part), or liquidity, or which give forth any unusual smell.

Tins, the insides of which show any roughness or erosion from the action on them of their contents.

A tin should never be opened until immediately before it is to be used. Its contents should be emptied out on to a dish, and not replaced in the tin, so that their condition may be thoroughly visible.

So far as possible the meat should not be kept for any length of time. If it cannot be used at once, it should be put in a cool place and carefully covered to protect it from flies and dust.

On no account should tinned meat be warmed up before use.

HENRY E. ARMSTRONG, D.Hy.,

Medical Officer of Health.

PREVENTION OF INFANTILE MORTALITY.

The Report of the Superintendent of Midwives is as follows :—

TO THE MEDICAL OFFICER OF HEALTH.

SIR,

Herewith I beg to submit my Report for the year 1910.

MIDWIVES ACT, 1902.

During the year 1910 twenty-nine midwives notified the Local Supervising Authority of their intention to practise. Of these seven work entirely as monthly nurses, twenty-one act as midwives and occasionally as monthly nurses, and one is eighty-six years old and does not practise.

Prosecution under the Midwives Act, 1902.—On 1st April, 1910, Section 1 (2) of the Midwives Act, 1902, came into force, and circular letters were sent to 70 uncertified women practising midwifery, whose names and addresses had been obtained, warning them against attending confinements. Three women ignored the prohibition, and were prosecuted and fined. One of the three had been a registered midwife, whose name was struck off the Midwives' Roll in 1909 for gross negligence when in attendance on a case.

Midwives' Inspection.—73 visits were paid to the midwives' homes to inspect the sanitary state of their residence, to see that their bags of appliances were kept in proper order, and that their registers were filled up in accordance with the rules of the Central Midwives Board. The standard of cleanliness and efficiency is well maintained; and as the result of the efforts of the Health Department the midwives take an active and valuable part in the work of preserving infant life, giving the mothers simple and sound advice on the care of their babies, and even re-visiting some cases during the first three months after birth.

1,512 living births and 38 still-births were attended by certified midwives.

Puerperal Septicæmia.—One case occurred during the year in the practice of a midwife.

Lectures to Midwives.—A course of 20 lectures was given and was well attended. Additional instruction is given to *bonâ fide* midwives, as occasion arises.

Unregistered Women.—13 visits were paid to these. The Central Midwives Board decided, by a new rule, B (2), to admit a limited number of uncertified persons to the Midwives' Roll without examination, applications to be received not later than September, 1910. Two applications were received from Newcastle, but the applicants, being unsuitable, were refused enrolment.

Notices to Local Supervising Authority from midwives who had sent for Medical Help—137. The details are as under:—

Prematurity (5 cases of twins)	33	Rise of temperature ...	6
Immaturity ...	7	Rigor ...	1
Uterine Inertia ...	14	Tenderness of breast ...	1
Adherent Placenta (1 still birth)	6	Congenital Deformity...	3
Abnormal Presentation (3 still births) ...	12	Infantile Convulsions ...	10
Ruptured Perinæum ...	1	Ophthalmia Neonatorum ...	5
Contracted Pelvis ...	1	Icterus Neonatorum ...	2
Abortion... ...	1	Pemphigus ...	1
Ante-partum Hæmorrhage ...	1	Bronchitis (infant) ...	1
Post-partum Hæmorrhage ...	2	Overlaying ...	1
Mothers' illness ...	6	Still-births ...	20
Syncope (mother) ...	2		137

Every case in which the medical practitioner's fee was claimed from the Board of Guardians has been visited and investigated.

Expectant Mothers.—199 have been visited and advised as to diet, occupation, and care of their general health. Once a week a class is held in which mothers who care to attend are taught to prepare the necessaries for the lying-in period, both for mother and child, and to provide infants' clothing for the first three months at least. The attendance averaged about six. A great number of expectant and nursing mothers

obtain much benefit at the "Mothers and Babies Welcome," where they are trained in the care and feeding of infants, in the elementary rules of home hygiene, and most important of all, are taught how to prepare and cook good plain wholesome food. Dinners are also provided for the expectant and nursing mothers.

Relief Recommendations for the lying-in period were given to seven mothers who were in need of nourishment.

Numerous cases are sent to the Charity Organization Society, which saves many a poor mother from starvation, and so helps towards the natural feeding of her infant.

Leaflets. (*Advice to expectant mothers*).—6,000 were distributed during the year.

Insanitary Dwellings.—23 cases of insanitary conditions were reported to the Medical Officer of Health.

Health talks to Mothers' Meetings were given in 22 instances on request of the Secretaries. 15 lectures were delivered at Girls' Clubs.

Tuberculosis Exhibition—Children's Section.—Not the least popular part of this most successful exhibition was a large room devoted to the hygiene of childhood.

Clothing, nursery and toilet appliances, feeding and cooking materials and utensils, and indeed everything necessary for the proper rearing of infants was shown. Object lessons in picture, chart, and model, and cheap adaptations and makeshifts for the more expensive articles of furniture were exhibited. The room was constantly crowded by keenly interested persons of all ages and both sexes.

Demonstrations were given continuously throughout the day and evening during the fortnight the exhibition was open, and there is no doubt whatever that this section proved a most valuable means of disseminating information.

NOTIFICATION OF BIRTHS ACT, 1907.

During the year 1910, notifications of 5,094 births have been received out of a total of 7,543 births registered; thus only 67·5 per cent. of the births were notified, 32·5 per cent. not being returned. Almost all of these latter occurred in the practice of medical men, and in one particular area of the City. There is reason to believe that all, or nearly all, of the births attended by midwives, and of those attended by unregistered women, are reported to the Health Department.

The following table shows from whom the notifications have been received :—

Notified by				Living Births.		Still Births.
Medical Practitioners...	...	...	...	2,230	...	103
Maternity Hospital	...	...	...	1,175	...	59
Union Infirmary	...	...	...	67	...	5
Midwives	...	...	...	1,512	...	38
Unregistered Women	...	...	...	46	...	—
Parents	...	...	...	64	...	—
Total				5,094	...	205

Prosecutions under the Notification of Births Act.—Three parents were proceeded against for failure to fulfil the conditions of the Act. Exemplary treatment was not asked for, and the magistrates warned the delinquents and imposed light nominal fines.

Of the births notified, 2,516 cases in the poorer parts of the City were visited as soon as possible after birth, and 1,463 were entered in the books of the special Health Visitors for regular revisitation until the infants attain the age of 12 months, only those cases being so supervised whose surroundings and circumstances were exceptionally unfavourable, and whose chances of survival were least. As these children become a year old in 1911, the results of the work done on their behalf will be described in the Report for that year. In all 5,529 visits were paid by the Health Visitors, in addition to the 2,516 primary visits by the Superintendent of Midwives,

The following particulars regarding the babies born in 1909, who reached their second birthday during 1910, are of interest. 1,463 names were entered on the lists of the Health Visitors. Of these, 146 were lost sight of and could not be traced, many of the parents having left the city on account of trade depression.

Of the remaining 1,317, 136 died—*i.e.*, 103 deaths per 1,000 births as compared with a mortality rate for the City generally of 123 deaths per 1,000 births, which is the second lowest on record, last year (1909), having the lowest rate with 122 deaths per 1,000 births. By means of the Notification of Births Act, 1907, the Health Department becomes apprised of practically all births occurring among the poorest and most ignorant classes of the community.

All cases under unregistered women have been visited by the Superintendent of Midwives and Health Visitors. Seeing that the registered Midwives are now well trained and reliable, attention to their cases is not so necessary as formerly, and the visits of the officers are almost entirely devoted to those infants whose circumstances and surroundings render their chances of survival extremely precarious, and whose mothers have no one at all to whom to apply for advice.

Influence of Housing Accommodation.—Of the infants visited by the officers of the Health Department who lived in single-roomed houses, the infantile mortality rate was 116 per 1,000 births; of those in two-roomed houses, 94 per 1,000 births; and of those in three-roomed houses, 78 per 1,000 births; only 7 babies, living in houses of more than three rooms, were visited, and of these, 2 died.

Parental Employment.—Only a small proportion of mothers are at work; the figures available do not point to the maternal employment exercising any particular influence upon the health of the infant.

Health of Mother.—Of 92 babies whose mothers were in bad health, 9 died.

Attendance at Birth.—Of the midwives' cases, the mortality figure is 89 per 1,000 births. Of the babies whose advent was assisted by untrained handywomen, the mortality was at the rate of 117 per 1,000 births.

Feeding.—82 per cent. of the babies under observation were entirely breast fed (as compared with 70 per cent. in 1909), while 9 per cent. received artificial (in addition to breast) feeding before the age of nine months, and 9 per cent. were entirely artificially fed. The infantile mortality figures are as follows :—

Entirely breast fed	99 per 1,000.
Mixed feeding (breast and artificial)	59 „
Entirely artificially fed	177 „

Illegitimacy.—The infantile mortality rate for legitimate children is 100 per 1,000, whereas that of the illegitimate babies is 173 per 1,000 births.

Sex.—The mortality rate among male infants was 94, and that among females 114, per 1,000 births.

I am Sir,

Your obedient Servant,

ELIA RENAUD,

Superintendent of Midwives.

*Health Department,
Town Hall,
13th April, 1911.*

BACTERIOLOGICAL INVESTIGATIONS.

The Report of Professor H. J. Hutchens on the work of the Bacteriological Department during the year is as follows:—

Summary of the Bacteriological work done for the Health Department of the Newcastle Corporation during the year 1910.

2,114 specimens were submitted for examination. The nature of the investigations, and the results obtained, were as follows:—

	DIPHTHERIA.			PHTHISIS.			ENTERIC FEVER.		
	Total.	Posi- tive.	Nega- tive.	Total.	Posi- tive.	Nega- tive.	Total.	Posi- tive.	Nega- tive.
No. of Examina- tions ...	920	327	593	603	157	446	89	24	65

Water:—

	Total.	CLASS I. Satis- factory.	CLASS II. Doubtful.	CLASS III. Unsatis- factory.	CLASS IV. Bad.
No. of Examina- tions ...	192	44	75	51	22

Milk:—

	Organisms, other than Tubercle Bacilli.			Tubercle Bacilli.		
	Total.	Satis- factory.	Unsatis- factory.	Total.	Tub. Bac. found.	Tub. Bac. not found.
No. of Examina- tions ...	194	137	57	111	6	105

Other examinations (5) include the following, viz.:—

One case of suspected anthrax, which proved negative.

Two cases of suspected meningococcal meningitis, in both of which the meningococcus was found.

Two cases of food poisoning, one due to tinned salmon, in which a pneumococcus was found, and one due to tinned mutton, from which paratyphoid bacillus was isolated.

H. J. HUTCHENS,
Bacteriologist.

*University of Durham College of Medicine,
Newcastle-upon-Tyne,
21st April, 1911.*

REPORT OF THE INSPECTOR OF NUISANCES.

General
Work of the
Health
Department

The Report of Mr. W. Hudspeth, Inspector of Nuisances, New House Drainage, Common Lodging-houses, Workshops, and Food Adulteration is given below:—

TO THE MEDICAL OFFICER OF HEALTH.

SIR,

I beg to submit to you my third report of the work done in my section of the Health Department during the year ended December 31st, 1910. See Tables 1 to 6A, pages 46 to 60.

As previously pointed out, it is difficult to show, in tabular form, the amount and nature of the work done by the inspectorial staff, as, apart from the actual number of nuisances, &c., dealt with, the amount of work entailed in accomplishing their abatement is often very considerable, *e.g.*, advising as to methods of remedy, supervising work in progress, testing completed work, &c. The Tables given, however, will show, as far as it is possible to do so, the amount of work which has been carried on.

The systematic inspection of tenemented property continues to result in much good, and conduces largely to the more cleanly habits of the occupiers. With a certain class of tenant, however, there is still room for improvement. Although the application of Acts and Bye-laws results in better sanitary conditions, in many instances the improvement is only temporary, and it is evident that legal powers alone are not sufficient to inculcate proper ideas as to personal cleanliness and the rudiments of sanitation.

Nuisance Abatement.—The total number of notices served during the year was 6,634 (of which 6,499 were informal and 135 statutory). Details as to the nature of the nuisances dealt with, of the work carried out in their abatement, and of legal proceedings taken will be found in the respective tables.

A large number of insanitary conveniences, viz., 60 “cell” privies (in Benwell and Walker), 40 midden-privies, and 117 pailclosets, have been removed and water-closets substituted, and many more are being dealt with.

The first ashtubs continue to be supplied by the Corporation, free of charge, on ashpits, pailclosets, &c., being abolished. 323 such tubs were given during the year.

Magisterial Proceedings (see Tables III. and IV.)—It will again be seen that only in very few instances was it necessary to resort to legal proceedings in order to obtain abatement of nuisances, &c. In the great majority of cases, where notices served were not at once complied with, reminding letters and personal calls upon the persons responsible resulted in the matters referred to being remedied.

Tenement Bye-laws.—The number of tenemented houses in the City is 3,531, containing 10,090 holdings, as follows:—

1 Room.	2 Rooms.	3 Rooms.	4 Rooms.	5 Rooms.	Total.
3,458	5,456	1,066	108	2	10,090

The Bye-laws with respect to these houses have again been fairly well complied with. The Bye-law requiring the half-yearly limewashing of tenement yards, passages, &c., continues to entail a great amount of work by the Health Department officers. In the year under report, 9,113 visits were made in connection with the enforcement of this Bye-law alone. As has been the practice previously, circular letters have been issued to all landlords of tenemented property, calling their attention to the requirements of this Bye-law. This, together with personal interviews, &c., resulted, in most cases, in the necessary limewashing, &c., being carried out without recourse to magisterial proceedings, which were only rendered necessary in thirty cases.

Drains of New Buildings.—Details of this work are shown in the following Table :—

No. of Houses at which Drains have been laid.	No of Main Drains Tested.		No. of Branch Drains Tested.		Supplementary Tests.	Super-visions of Work in Progress.	Visits to learn if Work in Progress
	With Water.	With Smoke.	With Water	With Smoke			
429	419	10	2,003	33	1,529	4,248	2,121

Smoke Inspections.—The following are particulars as to smoke observations taken :—

No. of chimneys watched.	No. of observations of chimneys made.	No. of chimneys from which black smoke issued in such quantity as to be a nuisance for periods of over 5 minutes in the aggregate in one hour.	No. of times when smoke issued so as to be a nuisance.	No. of notices served for the abatement of smoke nuisances.	
				Informal.	Statutory
99	179	22	29	17	1

Offensive Trades.—51 of these trades are carried on at 49 different premises, which have been systematically visited during the year. The trades referred to are: Tripe Boilers (8), Gut Scraper (1), Soap Boilers (2), Bone Boilers (2), Tanners (2), Fish Curers (5), Manure Manufacturers (2), Bone Store (1), Tallow Melter (1), Hide and Skin Dealers (5), Marine Store Dealers (22).

Common Lodging Houses.—These houses have been well conducted. Four have been closed, three voluntarily, and one in consequence of action taken with a view to condemnation of the premises as unfit for habitation.

Two additional houses have been added to the Register. The number of common lodging houses in the City at the end of the year was 60. The total number of lodgers for which these houses were registered was, at the close of the year, 2,080, as against 2,154 at the end of 1909. The average number of lodgers per night was 1,410, the highest and lowest numbers on any one night being 1,487 and 1,317 respectively.

For details see Tables VI. and VI_A.

The Inspectors who do this work also obtain samples of water and milk for bacteriological examination, and collected 192 of the former, and 308 of the latter during the year. These officers also take smoke observations, and assist the District Inspectors when required.

Bakehouses.—The workshop bakehouses (100) have been systematically inspected, and found to be kept in good order.

Adulteration Acts.—The number of samples of food and drugs purchased for analysis during the year is 625, against 1,127 in the previous year. All of these were submitted for analysis to the Public Analyst. For details see Table IV.

The decrease in the number of samples taken for analysis is due to the fact that the question of the Public Analyst's salary was for some time under consideration, during which period the taking of samples was suspended. As this matter has now been settled, it is proposed to obtain considerably more samples in future.

Milk.—The number of milk samples purchased is 386. 36 of these were certified to be below the standard fixed by the "Sale of Milk Regulations, 1901," the remainder being genuine.

Of the total number of samples taken (625) 161 were collected "informally," chiefly through the agency of hired persons, viz. :—

Margarine 31	Ground Rice 6	Glycerine... .. 4
Butter 5	Semolina 5	Olive Oil 5
Lard 17	Corn Flour 7	Gregory's Powder... 3
Flour 8	White Pepper... .. 5	Camphorated Oil ... 4
New Milk... .. 1	Black Pepper 1	Tartaric Acid 4
Cream 1	Condensed Milk ... 4	Tincture of Rhubarb 2
Ground Almonds ... 3	Mustard 2	Syrup of Rhubarb... 1
Arrowroot 2	Baking Powder ... 3	Ham, Chicken, and
Ground Ginger ... 2	Spirits of Nitre ... 8	Tongue Paste ... 1
Vinegar 4	Paregoric... .. 6	Salmon and Shrimp
Tapioca 2	Cream of Tartar ... 9	Paste 1
Sago 2	Ground Gentian Root 2	

The percentage of samples not genuine to the total number taken is 9·0 (compared with 10·9 for the previous year), and the percentage of milk samples below standard to the number of milk samples taken is 9·3, as against 10·6 in 1909. The total number of samples taken is at the rate of 2·2 per 1,000 of the population (estimated) of the City for the year 1910.

Preservatives in Food.—Of the total number of samples taken for analysis (625), only 24 (or 3·8 per cent.) were certified to contain preservatives, as follows:—

- 6 samples of Butter contained Boric Acid in amounts varying from 0·06 per cent. to 0·20 per cent.
- 3 samples of Margarine contained Boric Acid, in amounts varying from 0·07 per cent. to 0·20 per cent.
- 12 samples of Margarine contained “a small percentage of Boric Acid.”
- 3 Do. Cream contained Boric Acid to the extent of 0·37 per cent., 0·38 per cent., and 0·42 per cent. respectively.

In the case of the cream, the vendors were cautioned, but no action was taken in the other instances, the quantities of preservatives being within the limit allowed.

Margarine Act.—32 samples of Margarine (included in the foregoing total) have been purchased and analysed. All were genuine, excepting that 15 contained Boric Acid, the amounts of which were, however, within the limit allowed. See Table IV.

Margarine Warehouses.—124 visits have been made to the margarine warehouses. No contravention of the law as to the marking of packages containing margarine was found.

Houses Demolished.—26 tenemented houses (98 holdings), and 54 self-contained houses have been pulled down or otherwise ceased to be used as dwellings. 59 of these were demolished in connection with Messrs. Armstrong, Whitworth & Co.’s new shipyard at Walker, and 15 in the neighbourhood of Forth Banks were closed by the owner with a view to having the property re-modelled. These are in addition to the number closed as unfit for habitation, and reported upon by the Medical Officer of Health.

Factory and Workshop Acts.—There are 1,127 Workshops on the Register, besides a large number of factories, domestic workshops, workplaces, laundries, bakehouses, &c. Particulars as to inspections made, defects found, outworkers, &c., are given in Table V., pages 57 to 59.

Factory and Workshop Act, 1901.—During the year, 100 lists of outworkers have been received, 29 employers having sent in lists twice, and 42 employers once.

During the year 36 notices as to insanitary conditions in factories and workshops were received from H.M. Inspectors of Factories. 24 of these related to factories and 12 to workshops. The matters referred to were investigated and dealt with by service of notice, the results being reported to the Inspectors of Factories as required by the Act.

Sanitary Inspection of Council Schools.—236 inspections of these schools have been made during the year. In three cases, insanitary conditions were found. One of these, a minor matter, was immediately remedied, and the remainder (defective drain and yard pavement) were reported to the Secretary to the Education Committee.

I am, Sir,

Your obedient Servant,

W. HUDSPETH,

Inspector of Nuisances,

Common Lodging Houses, &c.

Health Department,

Town Hall,

1st May, 1911.

TABLE I.

SUMMARY OF NUISANCES FOR THE ABATEMENT OF WHICH NOTICES
WERE SERVED DURING 1910.

Foul privies and ashpits (to replace with water-closets)...	{ Privies Ashpits	108 66
Defective "cell" privies in Benwell and Walker (to replace with water-closets)		181
Foul ashpits not connected with privies (to remove and provide tubs)		59
Insufficient water-closet or privy accommodation (additional water-closets ordered)		10
Defective or insufficient tubs for dry house refuse (to provide new or additional tubs)		670
Defective water-closets (to repair)		458
Water-closets without water supply (to provide water)		105
Choked water-closets (to cleanse—mostly served on tenants)		236
Dirty water-closets (to cleanse—all served on tenants)		281
Defective pail-closets (to repair, provide new pails, &c.)		637
Foul pail-closets (to replace with water-closets)		262
Dirty privies (to cleanse—all served on tenants)		67
Defective drains (to repair, or construct new drains)		382
Choked drains, etc. (to cleanse)		1,100
Defective or choked sinks, waste pipes, soilpipes, vent shafts, etc. (to repair or cleanse)		188
Sink wastepipes not trapped, &c... ..		73
Defective pavement in yards and passages (to repair)		163
Dirty or dilapidated rooms (to be cleansed or repaired)		227
Damp rooms		30
Overcrowding (to abate)		58
Dirty yards and passages (to cleanse)		418
Animals, pigeons, and fowls improperly kept (to remove)		82
Offensive accumulations (to remove)		177
Accumulations of manure (to periodically remove)... ..		25
Want of or defective manure pits (to provide or repair)		7
Broken roofs and defective or choked spouting (to repair or cleanse)		263
Want of water (to provide supply)		226
Smoke nuisances (to abate)		18
Want of proper ventilation to tenement rooms owing to window cords being broken (to provide proper sash cords)		21
Defective "waste" waterclosets (to remove, and provide w.c's with flushing cisterns, &c.)		15
Pig styes defective		4
Defects in { Convenience choked		1
Schools { Defective drain		1
{ Defective yard pavement		1
Slop water thrown into privy pails or ashtubs		12
Filth thrown on streets		2
Want of or defective sanitary conveniences in public-houses (to provide or repair)		2
Stables.—Want of proper pavement, drainage, &c. (to provide)		2
Ice Creameries.—In dirty condition, &c.		9
Filth kept in rooms		2
Want of drainage		1
Unclassified minor nuisances (to abate)		74
Total		6,724

TABLE II.

DETAILS RELATING TO CERTAIN WORKS CARRIED OUT IN THE ABATEMENT OF
NUISANCES AND TO INSPECTIONS MADE DURING 1910.

Length in yards of old drains removed	3,714
„ „ new „ constructed	4,702
New trapped gullies provided to drains	711
Combined privies and ashpits removed { privies	*40
„ { ashpits	*36
Cell-privies removed (in Benwell and Walker Districts)	62
Water-closets provided	†276
Pail-closets removed	117
Defective water-closets removed, and closets of better design substituted	38
Dry ash-tubs substituted for dry ash-pits where water-closets existed, and provided in cases where pail-closets, &c., have been replaced by water-closets	‡323
No. of drains tested	1,190
No. of tests of above drains made by smoke and water	1,595
No. of inspections from complaints made at office (verbally or by letter)	940
No. of tenement inspections made	28,850
No. of contraventions of Tenement Bye-laws for which notices have been served to obtain remedy	§2,315
Inspections of houses made from complaints received outdoors or nuisances discovered in the districts, including a large number of minor nuisances, such as choked drains and dirty yards, the abatement of which was accomplished at the time of visit, and without legal notice	11,217
Inspections to learn if works ordered were in progress	9,293
Supervisions of works in progress	3,945
Common yards and courts in the worst localities specially visited on Friday afternoons and Saturday mornings to obtain weekly cleansing of same	32,128
Inspections after infectious disease	1,002
Inspections of milk shops and ice creameries	2,108
„ bakehouses	482
„ offensive trades	674
„ wholesale margarine warehouses	124
„ as to limewashing of tenements	9,113
„ of schools	236

* Some ashpits have more than one privy attached.

† 16 of these were provided on premises where the accommodation was previously insufficient.

‡ Free tubs given by Corporation in each case.

§ In addition to this number, the District Inspectors have daily had premises cleansed on verbal order,

TABLE III.

SUMMARY OF LEGAL PROCEEDINGS ORDERED TO BE TAKEN BEFORE
THE MAGISTRATES FOR THE ABATEMENT OF NUISANCES, &c.,
DURING THE YEAR 1910.

NATURE OF COMPLAINT.	No. of Cases.	HOW DISPOSED OF.
Defective Drains.	4	Work done without the summonses being applied for.
Choked Drains.	2	Ditto.
Defective Rainspouts, causing dampness.	3	Ditto.
Defective roofs, causing dampness.	7	Ditto.
*Accumulation of Manure and other Refuse.	2	Refuse removed without the summonses being applied for.
<i>Public Health Act, 1875, Sec. 36 :—</i>		
Houses without sufficient water closets. &c. (foul pail-closets, to replace by proper water closets).	7	Work done without the summonses being applied for.
Insufficient Privies (to repair).	1	Work done without the summons being applied for.
Insufficient Water Closets (to repair).	4	Work done without the summonses being applied for.
Defective or insufficient number of Ashtubs.	4	Tubs provided without the summonses being applied for.
<i>Newcastle-upon-Tyne Improvement Act, 1899, Sec. 42 :—</i>		
Ice-cream manufactured under conditions likely to expose the commodity to contamination.	1	Fined 20/- and costs.
<i>Carried forward ...</i>	35	<i>Amount of Penalties :—£1 0s. 0d.</i>

TABLE III.—*Continued.*

SUMMARY OF LEGAL PROCEEDINGS ORDERED TO BE TAKEN BEFORE
THE MAGISTRATES FOR THE ABATEMENT OF NUISANCES, &c.,
DURING THE YEAR 1910.

NATURE OF COMPLAINT.	No. of Cases.	HOW DISPOSED OF.
<i>Brought forward ...</i>	35	<i>Amount of Penalties :—£1 0s. 0d.</i>
<i>Newcastle-upon-Tyne Improvement Act, 1899, Sec. 46 :—</i>		
Want of Water Supply.	2	Water supplied without the summonses being applied for.
<i>Tenement Bye-laws :—</i>		
Contravention of Bye-law 12 (water-closet accommodation).	3	In two cases additional conveniences were provided, and in the other the number of tenants was reduced so as to bring the premises into compliance with the Bye-law. Summonses not issued.
Contravention of Bye-law 16 (water-closet structure and apparatus).	9	In eight cases the work was done without the summonses being applied for, and in the other a summons was issued but afterwards withdrawn on the work being done and costs paid by defendant.
Contravention of Bye-law 17 (maintenance in good order of privy structures and receptacles for filth).	4	Work done without the summonses being applied for.
Contravention of Bye-law 28 (keeping of fowls.)	1	Fowls ceased to be kept. Summons not issued.
Contravention of Bye-law 31 (limewashing of yards, passages, staircases, &c.)	30	Summonses issued but afterwards withdrawn on the work being done and costs paid by defendants.
Contravention of Bye-law 33 (pavement of yards).	3	Work done without the summonses being applied for.
Contravention of Bye-law 34 (want of water supply for domestic purposes).	15	Water supplied without the summonses being applied for.
<i>Total</i>	102	<i>Amount of Penalties :—£1 0s. 0d.</i>

TABLE IV.

FOOD AND DRUGS ADULTERATION ACTS.

SAMPLES TAKEN FOR ANALYSIS DURING THE YEAR 1910.

Articles taken for Analysis.	Total No. of samples taken.	Result of Analysis.	Rotational No. of sample.	Proceedings taken and result.
New Milk ...	386	350 genuine. 1 deficient in milk-fat 3·3%	13	Subsequent sample genuine. Vendor cautioned.
		1 deficient in milk-fat 16·6%	41	Subsequent sample genuine. Vendor's explanation accepted. No proceedings taken.
		1 deficient in milk-fat 3·3%	42	Subsequent sample genuine. Vendor cautioned.
		1 deficient in milk-fat 1·6%	47	From one vendor. Case dismissed <i>re</i> No. 47; vendor fined 10/- and costs <i>re</i> No. 59.
		1 deficient in milk-fat 13·3%	59	
		1 deficient in milk-fat 3·3%	69	Taken experimentally, in connection with proceedings pending.
		1 deficient in non-fatty solids 2·9%	142	Subsequent sample genuine. Vendor cautioned.
		1 deficient in milk-fat 10%	155	From one vendor. Fined 20/- and costs in each case. Fine not paid, and distress warrant issued by the police. Defendant, having "no goods," was committed to prison for one month.
		1 deficient in milk-fat 18·3%	160	
		1 deficient in non-fatty solids 4%	240	Vendor cautioned.
		1 deficient in milk-fat 6·6%	273	Subsequent sample genuine. Vendor offered explanation, which was accepted by Sanitary Committee.
		1 deficient in milk-fat 3·3%	285	Subsequent sample genuine. Vendor cautioned.
		1 deficient in milk-fat 5%	299	Case dismissed on payment of costs.
		1 deficient in milk-fat 20%	303	Case dismissed on payment of costs.
Carried forward ...	386	Amount of penalties carried forward ...		£2 10 0

TABLE IV.—*Continued.*

FOOD AND DRUGS ADULTERATION ACTS.

SAMPLES TAKEN FOR ANALYSIS DURING THE YEAR 1910.

Articles taken for Analysis.	Total No. of samples taken.	Result of Analysis.	Rotational No. of sample.	Proceedings taken and result.
Brought forward ...	386	Amount of penalties brought forward ...		£2 10 0
New Milk ... (<i>contd.</i>)		1 deficient in milk-fat 5·0%	310	Vendor cautioned.
		1 deficient in milk-fat 6·6%	334	From one vendor. Fined 10/- and costs <i>re</i> No. 334, and 20/- and costs <i>re</i> No. 344.
		1 deficient in milk-fat 38·3%	344	
		1 deficient in milk-fat 3·3%	340	Vendor cautioned.
		1 deficient in milk-fat 6·6%	342	Subsequent sample genuine. Vendor cautioned.
		1 deficient in milk-fat 13·3%	351	Subsequent sample genuine. Vendor cautioned.
		1 deficient in milk-fat 6·6%	356	Subsequent sample genuine. Vendor cautioned.
		1 deficient in milk-fat 6·6%	360	From one vendor, who was cautioned.
		1 deficient in milk-fat 1·7%	361	
		1 deficient in milk-fat 6·6%	383	Subsequent sample genuine. Vendor cautioned.
		1 deficient in milk-fat 3 3%	393	Subsequent sample genuine. Vendor cautioned.
		1 deficient in milk-fat 1·6%	506	Subsequent sample genuine. Vendor cautioned.
		1 deficient in non-fatty solids 16·7 %	513	From one vendor. Fined £10 and costs in each case.
		1 deficient in non-fatty solids 11·7%	518	
		1 deficient in non-fatty solids 11·7%	519	
		1 deficient in non-fatty solids 11·5%	520	
		1 deficient in non-fatty solids 5·6%	547	Vendor summoned. Case dismissed on payment of costs by defendant.
Carried forward ...	386	Amount of penalties carried forward ...		£44 0 0

TABLE IV.—*Continued.*

FOOD AND DRUGS ADULTERATION ACTS.

SAMPLES TAKEN FOR ANALYSIS DURING THE YEAR 1910.

Articles taken for Analysis.	Total No. of samples taken.	Result of Analysis.	Rotational No. of sample.	Proceedings taken and result.
Brought forward ...	386	Amount of penalties brought forward ...		£44 0 0
New Milk ... (<i>contd.</i>)		1 deficient in milk-fat 10·0%	550	From one vendor. Summonses issued, but afterwards withdrawn on death of defendant.
		1 deficient in milk-fat 16·6%	555	
		1 deficient in milk-fat 6·6%	561	From one vendor. Fined 20/- and costs in each case.
		1 deficient in milk-fat 6·6%	567	
		1 deficient in milk-fat 6·6%	565	Subsequent sample genuine. Vendor cautioned.
Blackcurrant Jam... ..	12	10 genuine.		
		1 not entirely blackcurrant jam, but contained a considerable proportion of juice or pulp of other fruits, partly gooseberry. The sample also contained a minute proportion of artificial colouring-matter.	82	Vendor summoned, and fined 5/- and costs.
		Ditto.	83	Case dismissed on payment of costs, defendant stating that the jam he sold was purchased from defendant in the previous case (<i>re</i> sample No. 82).
Lard	18	17 genuine.		
		1 contained at least 70% of cottonseed oil, and 15% of beef stearin. (Labelled "Lardine.")	115	Vendor cautioned.
Coffee	2	1 contained 100% of chicory	169	Vendor submitted letter to Sanitary Committee, explaining that the article had been supplied in error during his absence. Vendor cautioned.
		1 contained 38% of chicory	265	Vendor cautioned.
Carried forward ...	418	Amount of penalties carried forward ...		£46 5 0

TABLE IV.—*Continued.*

FOOD AND DRUGS ADULTERATION ACTS.

SAMPLES TAKEN FOR ANALYSIS DURING THE YEAR 1910.

Articles taken for Analysis.	Total No. of samples taken.	Result of Analysis.	Rotational No. of sample.	Proceedings taken and result.
Brought forward ...	418	Amount of penalties brought forward ...		£46 5 0
Cream...	3	1 contained boric acid 0·37%. (Informal sample.)	444	Formal sample obtained. (See No. 457.)
		1 contained boric acid 0·38%	457	Vendor cautioned.
		1 contained boric acid 0·42%	460	Vendor cautioned.
Whisky ...	6	4 genuine.		
		1 contained 7·1% excess of water, and was 30·4 degrees under proof.	477	Vendor fined 40/- and costs.
		1 contained 1·7% excess of water, and was 26·3 degrees under proof.	478	Vendor cautioned.
Mustard ...	2	1 genuine.		
		1 contained 10·0% of wheat starch. (Labelled "Mustard Compound.") (Informal sample.)	543	No action taken having regard to the labelling of the sample.
Butter...	40	38 genuine.		
		1 contained 100% of Margarine, and the Margarine 0·20% of boric acid.	581	No proceedings taken, there being a doubt as to the exact article asked for by the purchaser (a hired boy), the sample being delivered in a paper marked "Margarine," and "Margarine" price only charged.
		1 contained 100% of Margarine, and the Margarine 0·07% of boric acid. (See also page 56.)	622	Vendor summoned. Case dismissed, defendant stating that immediately prior to the purchase of the sample she had transferred the business to her daughter.
Carried forward ...	469	Amount of penalties carried forward ...		£48 5 0

TABLE IV.—*Continued.*

FOOD AND DRUGS ADULTERATION ACTS.

SAMPLES TAKEN FOR ANALYSIS DURING THE YEAR 1910.

Articles taken for Analysis.	Total No. of samples taken.	Result of Analysis.	Rotational No. of sample.	Proceedings taken and result.
Brought forward ...	469	Amount of penalties brought forward ...		£48 5 0
Sago ...	4	1 consisted entirely of tapioca. (Informal sample). Ditto.	583 594	Formal sample taken. (See No. 619.) Formal sample taken. (See No. 620.)
		1 consisted entirely of tapioca. Ditto.	619 620	No proceedings taken. Ditto.
Vinegar ...	5	2 genuine. 1 deficient in acetic acid 21·6%. (Informal sample.) 1 deficient in acetic acid 11·6%. (Informal sample.) 1 deficient in acetic acid 58·3%.	590 591 621	Formal sample could not be obtained, the shopman stating that they did not keep the article asked for. Formal sample obtained. (See No. 621.) Vendor fined 10/- and costs.
Skimmed Milk	2	All genuine.		
Margarine ...	32			
Condensed Milk	4			
Ground Rice ...	6			
Semolina ...	5			
Corn Flour ...	7			
White Pepper	5			
Black Pepper	1			
Baking Powder	3			
Flour ...	8	Genuine. (All contained traces of nitrites, but in insignificant quantity).		
Carried forward ...	551	Amount of penalties carried forward ...		£48 15 0

TABLE IV.—*Continued.*

FOOD AND DRUGS ADULTERATION ACTS.

SAMPLES TAKEN FOR ANALYSIS DURING THE YEAR 1910.

Articles taken for Analysis.	Total No. of samples taken.	Result of Analysis.	Rotational No. of sample.	Proceedings taken and result.
Brought forward ...	551	Amount of penalties brought forward ...		£48 15 0
Ground Almonds	3	All genuine.		
Arrowroot ...	2			
Ground Ginger	2			
Tapioca ...	2			
Ham, Chicken and Tongue Paste	1			
Salmon and Shrimp Paste	1			
Beer ...	6			
Gin ...	3			
Rum ...	3			
Brandy ...	3			
Sweet Spirits of Nitre	8			
Paregoric ...	6			
Cream of Tartar	9			
Glycerine ...	4			
Olive Oil ...	5			
Camphorated Oil	4			
Tartaric Acid...	4			
Tincture of Rhubarb	2			
Syrup of Rhubarb	1			
Ground Gentian Root	2			
Gregory's Powder	3			
TOTAL ...	625	Total amount of penalties		£48 15s. 0d.

TABLE IV.—*Continued.*

FOOD AND DRUGS ADULTERATION ACTS.

PROCEEDINGS TAKEN WITH RESPECT TO OFFENCES OTHER THAN
ADULTERATION.

Offence.	No of Sample.	Proceedings taken, &c.
<i>Sale of Food and Drugs Act, 1899, Sec. 6 (2).</i> Sample of Margarine delivered to purchaser in a wrapper bearing the word "Margarine" (in two places) in letters only $\frac{5}{16}$ " long, and, in addition, in large type, the name and address of of the vendor.	167	Vendor cautioned.
<i>Sale of Food and Drugs Acts, 1875, Sec. 17, and 1879, Sec. 5.</i> Refusing to sell a sample of Milk to the Inspector.	...	Fined 40/- and costs.
<i>Margarine Act, 1887, Sec. 6.</i> Margarine, sold as Butter, delivered to purchaser in a plain paper, and bulk in shop from which the sample was taken not labelled "Margarine."	622	Cases dismissed. (See page 53.)
<i>Sale of Food and Drugs Act, 1899, Sec. 9.</i> Name and address of vendor not inscribed upon his milk-cans.*	...	Fined 10/- and costs.
Ditto.	...	Fined 5/- and costs.
Ditto.	...	Fined 1/- and costs.
		Total Amount of penalties, £2 16s. 0d.

* NOTE.—In 15 similar cases, the milk-vendors were cautioned. In the above three cases, in which proceedings were taken, two of the vendors had been cautioned previously.

TABLE V.

ADMINISTRATION OF THE FACTORY AND WORKSHOP ACT, 1901,
IN CONNECTION WITH FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES
AND HOMEWORK, DURING THE YEAR 1910.

1.—INSPECTION.

INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS OR
INSPECTORS OF NUISANCES.

PREMISES.	Number of Inspections.	Number of Written Notices.	Number of Prosecutions.
Factories (Including Factory Laundries.)	372	411	Nil.
Workshops (Including Workshop Laundries.)	4,756		
Workplaces (Other than Outworkers' premises included in Part 3 of this Report.)	432		
Total	5,560	411	.....

2.—DEFECTS FOUND.

PARTICULARS.	Number of Defects Found.	Number of Defects Remedied.	Number of Defects referred to H.M. Inspector.	Number of Prosecu- tions.
<i>Nuisances under the Public Health Acts:—*</i>				} Nil.
Want of cleanliness	269	269	—	
Want of ventilation	8	8	—	
Overcrowding	12	12	—	
Want of drainage of floors	—	—	—	
Other nuisances	125	125	—	
†Sanitary accommodation {insufficient	38	38	1	
{unsuitable or defective	72	72	—	
{not separate for sexes	13	13	—	
<i>Offences under the Factory and Work- shop Act:—</i>				
Illegal occupation of underground bakehouse (s. 101)	Nil.	—	—	
Breach of special sanitary require- ments for bakehouses (ss. 97 to 100) }	Not kept included	separately, in above.	—	
Other offences (Excluding offences relating to out- work which are included in Part 3 of this Report.)	85	85	—	
Total	622	622	1	

* Including those specified in sections 2, 3, 7 and 8, of the Factory and Workshop Act as
remediable under the Public Health Acts.

† Sec. 22 of the Public Health Acts Amendment Act, 1890, is in force. The standard fixed by the
Sanitary Accommodation Order (No. 89) of 4th February, 1903, is followed as a model.

TABLE V.—Continued
3.—HOME WORK.

OUTWORKERS' LISTS, SECTION 107.														OUTWORK IN INFECTED PREMISES, SECTIONS 109, 110.		
NATURE OF WORK.	Lists received from Employers.						Number of Inspections of Outworkers Premises. (12)	OUTWORK IN UNWHOLESOME PREMISES, SECTION 108.								
	Twice in the Year.		Once in the Year.					Instances. (13)	Notices served. (14)	Prosecutions. (15)	Instances. (16)	Orders made (Section 110.) (17)	Prosecutions (Sections 109, 110.) (18)			
	Lists.† (2)	Outworkers.†		Lists. (5)	Outworkers.†											
		Con-tractors (3)	Work-men. (4)		Con-tractors (6)	Work-men. (7)										
														Failing to keep, or permit inspection of Lists. (10)	Failing to send Lists. (11)	
(1)	56	4	230	41	3	116	1	29	Nil.	Nil.	16	16	Nil.	Nil.		
Wearing Apparel-Making ...	...	...	20	1	...	1	...	...	...	...	...	...	...	...
Furniture and Upholstery ...	...	...	2	...	...	...	...	...	...	...	...	...	...	...
Umbrellas, &c. ...	2	...	12	...	...	...	...	...	...	...	...	...	...	...
Paper Bags and Boxes...	58	4	264	42	3	117	1	29	...	...	16	16	...	...
Total ...																

NOTE.—Columns (3), (4), (6), and (7)—Employers seldom state whether their Outworkers are “Contractors” or “Workmen,” hence the numbers given above may not be properly divided.

* The Notices were served upon the *Outworker* in each case, and were immediately complied with.

† The figures in columns 2, 3, and 4 are the *total* number of lists (received from employers who sent them both in February and August as required by the Act) and of the entries of names of outworkers in those lists. They are, therefore, double of the number of such employers and (approximately) double of the number of individual outworkers whose names are given, since in the February and August lists of the same employer the same outworker's name is often repeated.

In cases where an employer gives out work of more than one of the classes specified in Column (1), the “list” is included in Column (2), or (5), as the case may be, against the principal class *only*, but the outworkers are assigned in Columns 3 and 4 (or 6 and 7), into their respective classes.

TABLE V.—*Continued.*
4.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year.							Number.	
Important classes of workshops, such as workshop bake-houses may be enumerated here.	{	Factories	...	...	...	...	636	
		Workshops	...	...	...	...	1,127	
		Domestic Workshops			...	...	...	146
		Workplaces	...	...	...	...	...	132
		Laundries	...	...	...	...	...	53
		Bakehouses	...	...	...	...	...	100
Total Number of Factories and Workshops on Register ...							2,194	

5.—OTHER MATTERS.

CLASS.	Number.
Matters notified to H.M. Inspector of Factories:—	
Failure to affix Abstract of the Factory and Workshop Act (sec. 133)	11
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5).	{
Notified by H.M. Inspector ...		36
Reports (of Action taken) sent to H.M. Inspector	36
Other:—	
Underground Bakehouses (s. 101):—	
Certificates granted during the year	1
In use at the end of the year	14

TABLE VI.

REGISTERED COMMON LODGING HOUSES.

SUMMARY OF WORK DONE AND VISITS MADE DURING THE YEAR 1910.

Number of Houses on the register at the end of the year	60
Applications for registration (granted)	2
New houses registered	2
Houses closed	4
Inspections made in the day-time	10,894
„ „ night-time	663
Notices served { <i>re</i> washing of bed clothes 243 } { „ limewashing of houses 121 }	364
Contraventions of Bye-laws :—	
<i>Re</i> Cleaning and ventilation of houses	44
„ Removal of liquid filth from rooms	1
Want of water supply	1
Bed clothes not properly “aired” during prescribed hours	5
Bedding dirty or defective	10
Cleansing of yards and passages	4
Structural defects in houses	19
Defective water-closets and drains	13
Choked drains, water-closets, &c.	38
Defective roofs and spouts	14
Want of, or defective, ash-tubs	7
Offensive accumulations	7
Dirty water-closets	8
Lavatory basin dirty	1
Wastepipe choked	1
Deaths reported (non-infectious disease)	3

TABLE VIA.

LODGERS OCCUPYING COMMON LODGING HOUSES IN THE CITY
DURING THE YEAR 1910.

	Year 1910.	Corresponding Nos. for Year 1909.
Average number of Lodgers per night	1,410	1,430
Highest number on any one night	1,487	1,511
Lowest „ „ „	1,317	1,330
Number of Lodgers for whom accommodation was provided in the Common Lodging Houses of the City at the end of the year	2,08	2,154

REPORT OF THE VETERINARY OFFICER, INSPECTOR OF MEAT, &c.

TO THE MEDICAL OFFICER OF HEALTH.

SIR,

I have the honour to present this my fourth annual Report concerning the duties performed in my section of the Health Department during the year ending December 31st, 1910.

DISEASES OF ANIMALS ACTS.

The animals within the City and County of Newcastle-upon-Tyne have remained free from contagious disease, communicable to man, during the past twelve months.

THE DAIRIES, COWSHEDS, AND MILKSHOPS ORDERS, 1885-1899.

There are 38 dairymen within the City who occupy 41 premises, and possess a total of 503 milch-cows. 436 visits have been made to the cowsheds and dairies by the inspectors during the past twelve months.

During the year two persons have given up the business of cow-keeping, whilst one has commenced to keep cows and has been registered.

It has been found necessary, on one or two occasions, to request the dairymen to groom their cows on account of being in a very dirty condition, and on other occasions to cleanse the udders and teats before proceeding to draw milk.

DISEASE AMONGST THE COWS.

Cases have occurred where it was found necessary to stop the milk supply of certain cows, and to have them isolated from the dairy herd. Of these, one was removed from the premises and destroyed, as compared with five in the previous year. [See Table No. 1.]

The reduction in the number of tuberculous cows found within the city herds during the past year should not be accepted as any definite sign, owing to the fact that, on account

of increased duties under the Diseases of Animals Acts, the Veterinary Officer has been prevented from making the number of examinations of milch-cows considered desirable. Of the ten diseased cows found in the dairy herds within the city, two were affected with tuberculosis, one of these being affected in the udder.

One of the most important points concerning bovine tuberculosis, absolutely unapproached by any form of legislation in Great Britain, is the fact that directly a tuberculous cow is removed from a dairy herd the owner is free to take her, and if he chooses, sell her to a dairyman in some other district where, in the absence of veterinary inspection, she will continue to contaminate the milk supply with the germs of a dangerous disease or, on the other hand, he may sell her to some butcher to be slaughtered for human food and, providing there is no meat inspection in his district, the butcher, in order to obviate a financial shock on account of the meat being diseased, commonly strips or "fakes" the diseased meat and sells it to an unsuspecting public who have no means at their disposal of determining its condition.

Knowing that the Royal Commission on Tuberculosis, appointed some years ago, gave it as their opinion "that cows' milk containing bovine tubercle bacilli is clearly a cause of tuberculosis, and of fatal tuberculosis in man," the absence of any legislation to-day, dealing with the problem of bovine-tuberculosis in regard to our food supplies—whether in the solid (meat), or more particularly in the liquid (milk) state—framed in such a way as to cause the control of the (clinically diseased) live subjects intended to produce such food stuffs, might almost be described as a national disgrace.

Were such a condition of affairs remedied and accompanied by proper compulsory national legislation dealing with the hygiene of the cowsheds, such as structure, ventilation, light, air-space, drainage, water supply, and cleanliness, applied reasonably but unmistakably, then a step in the march of progress would be taken towards eliminating the disease from the herds and consequently preventing the risk of infection to man.

Besides tuberculosis, other diseases affect cows, which, through the medium of the milk, are a danger to the consumer. These diseases, particularly those affecting the udder, have received attention from time to time.

CONDITION OF THE CITY COWSHEDS.

Two and a half years ago the task was commenced of measuring up—besides taking notes of—the whole of the dairy cowsheds within the City and County of Newcastle-upon-Tyne, with a view to obtaining particulars as to:—

1. The approximate amount of cubic air-space allotted to each cow.
2. Defects regarding light, ventilation, and drainage.
3. General fitness or otherwise of the buildings, structurally, for the healthy housing of the cows and the production of a clean milk supply.

Of the 47 cowsheds on the 41 premises occupied by the cow-keepers, only seven have the necessary amount of air-space, viz., 800 cubic feet per cow, according to the regulations. Nine sheds provide over 700 cubic feet per cow, and seven provide over 600 cubic feet per cow. Thus it will be seen that 23 sheds provide between 600 and 800 cubic feet per cow.

Of the remainder, or 50 per cent. of the whole, four sheds provide between 500 and 600 cubic feet per cow, 14 provide between 350 and 500 cubic feet per cow, whilst the remaining six each provide less than 350 cubic feet of air-space per cow. In so far as air-space is concerned, it may be said that seven cowsheds can be classed as good, nine as fair, seven as poor, four as bad, and 20 as very bad indeed. Several of the cowsheds which are provided with too many stalls for the size of the buildings, and consequently providing too little air-space per cow, may in other respects be considered passable. There are others where the cubic capacity is up to the amount required by the regulations, but where light, ventilation, or drainage is considered insufficient or even bad. Of the 20

worst cowsheds within the City, six are the property of the Corporation. Although there is not a single cowshed within the City that one could consider as model premises, yet there are many which, with slight alteration either as to light, ventilation, drainage, or as to the number of cows to be admitted, could be made reasonably fit. It is proposed to deal with them in batches by bringing a collection of the worst premises before the Sanitary Committee, providing the owners, after due notice, do not take the necessary steps to put the premises in order or cease to use them for the housing of milch-cows.

To prevent one wrongly concluding that this subject has been unduly delayed, it should be pointed out that whilst the occupiers or owners of premises have been requested, from time to time, to carry out repairs and other minor improvements, with which they have complied, it has, nevertheless, been found impossible to deal either earlier or more fully with it owing to other schemes of sanitary reform—particularly in regard to slaughter-houses—besides increase of work under the Foreign Meat Regulations and inspection of export horses under the Diseases of Animals Acts, occupying most of the time at one's disposal for such matters during the past four years.

TABLE No. 1.

DAIRY COWS WITHIN THE REGISTERED COWSHEDS OF THE CITY AND COUNTY OF NEWCASTLE-UPON-TYNE DURING THE YEAR 1910.

No. of Cow-keepers.	No. of Cows.	No. of Cows found affected with Tuberculosis.		No. of Cows found affected with other diseases.		No. of Cows whose milk supply was stopped at the request of the Veterinary Officer.
		Of Udder.	Other than the Udder.	Of Udder.	Other than the Udder.	
38	503	1	1	8	—	
No of Cows destroyed.				No. of Cows disposed of in other ways than by destruction.		
Sent to Knackers by Owners as having died.		Destroyed by request of Veterinary Officer.				
10		1 (Tuberculosis)				
				1 (Tuberculosis)		

MEAT, PROVISIONS, FISH, FRUIT, &c.

During the year 1910, besides other meat, some $232\frac{1}{2}$ home killed animal carcasses have been condemned and destroyed as being unfit for human consumption. Of that number, no less than $132\frac{1}{2}$ carcasses were condemned on account of tuberculosis, which is the largest number of condemnations on account of this disease in any given year on record within the city. During the year the Newcastle, Gateshead and District Butchers' Cattle Insurance Society paid to its own members £1,145 4s. 2d. as compensation in respect of claims for carcasses condemned for tuberculosis. This is an increase of £491 8s. 6d. on the amount paid during the year 1909, and an increase of £589 18s. 4d. on the amount paid during the year 1908.

Apart from the large number of carcasses and other portions of meat belonging to butchers other than members of the local insurance society, condemned on account of disease, the above figures serve to demonstrate the increased demands made upon the financial resources of the local butchers' insurance society, for it will be observed that during the past two years the amount paid in compensation has more than doubled itself.

To point directly to the cause of the enormous increase of the losses suffered by the local butchers' insurance society, it is only necessary to mention that during the past 12 months that society has laid itself open "to be shot at" by extending the insurance to admit cows and also animals which they term second-class heifers. Under this system, an animal which is supposed to have had only one calf, is called a second-class heifer; but these are nevertheless cows, and necessarily leave objectionable loopholes, at least from the society's point of view. Cows require little or no mention, for the risks in regard to these animals are universally known to be great. So disastrous has the cow class proper proved itself to the society that they have had to levy a call of £1 0s. 10d. per head on these animals to pay for the losses, and as a consequence, the society decided, from the beginning of this year, not to insure cows in the future. It is therefore anticipated that during this year

the number of carcasses condemned on account of tuberculosis in this city will be greatly reduced on account of the deletion of this class; for there are very few butchers who will now undertake the financial risk of purchasing cows and killing them within the city—uninsured. It is a well recognised fact that a large number of cows of various ages and conditions of apparant health, are being regularly slaughtered in the surrounding country districts and smaller towns, and the meat never submitted to any inspection whatever. To these must again be added those cows that would have been slaughtered within the city and afterwards condemned as totally unfit for food on account of disease, had the insurance of them been allowed to continue.

It will, therefore, be very easy—without any undue imagination whatever—for one to arrive at a clear conclusion that in those districts where meat inspection does not obtain, the unsuspecting public are being regularly subjected to the dangerous process of not only handling but consuming large quantities of extensively diseased meat. As an illustration of what has just been stated regarding the absence of inspection in surrounding districts, it may be mentioned that during the past twelve months no fewer than 359 animal carcasses—slaughtered outside the city—were sent into the city to be sold, and 33 of these, or practically 10 per cent., were found diseased and unfit for food, and therefore destroyed, as will be seen from the following table:—

TABLE No. 2.

* CARCASSES SLAUGHTERED OUTSIDE THE CITY SENT IN TO BE SOLD DURING THE YEAR 1910.

	No. of Carcasses.	Fit.	Unfit.	Tuberculosis.	Other Diseases.
Beef ...	26	17	9	7	2
Veal ...	7	1	6	—	6
Mutton ...	8	1	7	—	7
Pork ...	318	307	11	7	4
Total ...	359	326	33	14	19

* The above are also included in Table No. 9.

Even in those districts where inspection is attempted, but where, unfortunately, slaughter-houses are widely scattered over the neighbourhood, the possibility of diseased meat reaching the shops can never be excluded.

Meat inspection can never approach completeness until the time arrives when it is possible to examine the live animals just prior to slaughter, and, more particularly, to inspect the carcasses and their internal organs immediately afterwards at one central establishment, such as a modern abattoir. Under such conditions only will it be possible to properly detect the existence or otherwise of diseased conditions. Moreover, a modern abattoir allows of the carcasses being dressed under proper sanitary conditions as distinguished from the difficulty of preventing the contamination with filth and other unclean methods so frequently occurring in private establishments. *E.g.* : One afternoon, during July last, on entering slaughter-house premises within the city they were found in a filthy condition ; dirty sacks and boxes containing old bones, fly laden and filthy, were scattered about, and a refuse cart standing in the yard was simply overladen with filth. Part of these premises were used in which to prepare cooked meats. On entering the fat mincing-room a large bath was found containing 1 cwt. 104 lbs. of intestinal and other fat, improperly cleansed and literally alive with maggots. In a tin, near the bath, was found 1 cwt. 54 lbs. of the same kind of fat, also alive with maggots. In another tin was found 1 cwt. 24 lbs. of fat, which had just been put through a machine-driven mincer, the maggots in this case having been ground up with the fat. Large maggots were crawling about the floor. According to the manager, it was intended to mince the whole lot, and then boil it down for dripping, to be sold for human consumption. The whole of the abominable filth was seized and destroyed, and, as repeated warnings had not had the desired effect, the proprietor of the establishment was summoned and fined £5 and costs.

SCRAPING PUTRID INTESTINES.

There are many butchers who believe that intestines, although in an advanced state of putrefactive decomposition, are quite good enough to be scraped and afterwards used for sausage making. In fact, many butchers have the impression that sausage skins cannot very well be prepared unless in a semi-putrid condition. When such skins are cleaned, they are generally rubbed and mixed with dry coarse salt, a process which partially masks the odour but does not remove the changed condition. The practice has been carried on many years by butchers and gut-scrapers, and whenever prevented—when found using such skins, they appeared greatly alarmed and surprised. The use of such skins being considered not only objectionable but dangerous, the subject was brought before the Sanitary Committee in order to obtain their instructions to give a general warning to those concerned. The following letter was sent to all the butchers within the city, and the effect generally has been all that could be desired.

WARNING TO BUTCHERS AND OTHERS.

DEAR SIR,

It has been brought to the notice of the Sanitary Committee that it is a common practice to use putrid intestines in the manufacture of sausage skins. I am, therefore, instructed by the Committee to inform you that possession of putrid sausage skins, whether prepared or otherwise, will render the owner liable to have them seized as unsound meat.

Yours faithfully,

THOMAS PARKER.

TABLE No. 3.

NUMBER OF VISITS AND INSPECTIONS OF PREMISES DURING THE YEAR 1910.

Slaughter Houses.	Wholesale and Retail Meat, &c., Shops.	Sausage Factories.	Fish Markets.	Meat and Provision Markets.	Fruit and Vegetable Markets.
8,500	484	36	690	500	474

FOREIGN MEAT REGULATIONS.

During the year 1910, some 116 vessels, carrying meat and other foodstuffs from foreign countries (South America, Norway, Sweden, Denmark, United States, Belgium, Holland, &c.) arrived at the Newcastle Quayside. Of these, 11 were large South American meat boats fully equipped with cold storage. 218 visits were paid to the wharves, and of the 2,141 barrels, casks, and other packages containing meat &c., opened minute examinations were made in each case.

FOREIGN MEAT ARRIVING BY RAIL.

During every week of the year, thousands of quarters of beef, carcasses of mutton and pork, and cases of offal have arrived in the city by rail, and although the exact statistics are not available except through the North Eastern Railway Company, the quantities appear to be rapidly increasing, as observed by the increased sales in the wholesale shops.

FOREIGN MEAT ARRIVING BY VESSELS.

The quantities of fresh, frozen and chilled foreign meat imported during the year (see Table Nos. 4 and 5) are greatly in excess of the year 1909, *e.g.*: there is an increase of 517 sides of fresh beef; an increase of 95,094 quarters of frozen beef, and an increase of 96,840 sides of large bacon pork. On the other hand, there has been a decrease in the imports of chilled beef to the extent of 3,990 quarters, and a slight decrease in the imports of mutton and lamb.

During the year then, independent of the large quantities of foreign meat arriving in the city by rail, the increase in imported beef and pork, landed at the Quayside, has resulted in the exact equivalent to 23,034 large bullocks and 48,420 large bacon pigs.

Several packages (see Table No. 6) were re-exported owing

to the absence of officially certified labels; others on account of the meat having been stripped of its lining membranes.

Amongst the consignments destroyed were two barrels containing horse flesh, which were imported bearing the label "Salt meat." (See Table No. 7.) Three hundred and sixteen barrels containing offal were destroyed owing to disease and unsoundness.

Included in Table No. 9 is a forequarter of South American beef, which had arrived by rail, and was deposited in a wholesale meat shop within the city. The manager, noticing something wrong, reported the matter. On inspection, it was found to have been stripped on account of tuberculosis. Surrender and destruction of the quarter completed the proceedings. Thirty of the visits made to the Quayside were in response to notices received from H.M. Customs in respect of packages detained according to the Customs regulations. It is pleasant to be able to state that from the commencement of the inspection under the Foreign Meat and Unsound Food Regulations the assistance given by the Customs officials has greatly facilitated the carrying out of these regulations on the wharves, and their co-operation generally can best be summed up as being first class. Finally, the Port Sanitary Medical Officers of Shields and London, respectively, have facilitated the work by transmitting information regarding vessels passing through their ports whilst carrying foreign food stuffs to Newcastle-upon-Tyne.

The following tables show the quantities of foreign meat imported, re-exported, destroyed, etc., whilst Tables Nos. 9 and 10 show the quantities of meat, fish, fruit, provisions, etc., other than foreign meat, destroyed within the city.

Foreign meat arriving by vessel and landed at the Newcastle-upon-Tyne Quayside:—

TABLE No. 4.

FRESH.					
BEEF.	VEAL.	VENISON.	MUTTON.	LAMB.	PORK.
Sides 1,872½ Casks.	Carcasses 11	Casks 2	Casks 26	Casks 3	Carcasses 475 Sides ...238,093 Casks.
Cheeks ... 17					Feet ... 4,105
Udders ... 1					Maws ... 2,338
Meat ... 1					Tongues ... 101
Tongues ... 4					Steaks ... 21
Heads ... 3					Heads ... 4,397
Kidneys ... 2					Pork ... 51
Offal ... 72					
OTHER GOODS { Labelled as Salt Meat, Two Barrels of Horse Flesh, weighing 9 cwts. 1 qr. 11 lbs.					

TABLE No. 5.

FROZEN.			CHILLED.
BEEF.	MUTTON.	LAMB.	BEEF.
Fore-qrs. 33,290 Hind-qrs. 116,811 Packages.	Carcasses 75,920 Packages.	Carcasses 4,719	Fore-qrs. ... 680 Hind-qrs. ... 60
Hearts ... 2,199	Legs ... 55		
Tails ... 330	Loins ... 87		
Skirts ... 576	Shoulders ... 88		
Tongues ... 411	Hearts ... 769		
Livers ... 1,432	Kidneys ... 601		
Kidneys ... 86½	Suet ... 115		
Tripe ... 3,712½			
Offal ... 50			
Flitches ... 203			
Cheeks ... 573			

The following were re-exported from this Country, at the expense of the sender, for non-compliance with the requirements of the Foreign Meat Regulations :—

TABLE No. 6.

28 Barrels of Pork	(unlabelled Scrap Meat).
6 „ Pigs' Maws	(unlabelled).
2 „ Pork	(stripped).
2 „ Pork	(unlabelled).

The following were seized and destroyed in accordance with the Foreign Meat and Unsound Food Regulations :—

TABLE No. 7.

DESTROYED BY ORDER OF A JUSTICE.		
2 Barrels of Horse Flesh (labelled as "Salt Meat").		
1 Barrel of Ox Kidneys (Putrefactive decomposition).		
DESTROYED WITH CONSENT OF OWNER.		
2 Barrels of Ox Hearts (Putrefactive decomposition).		
1 Barrel of Ox Kidneys	"	"
247 Ox Kidneys	"	"
6 Ox Hearts	"	"
60 Ox Livers	(Fatty degeneration).	

SLAUGHTER HOUSES.

Besides individual premises—numbering 14—in various parts of the city, there are five groups situate at Byker, Stepney, Benwell, Scotswood Road and Dispensary Lane, making a total of 110 separate slaughter-houses. For the past 18 months, the occupier of the largest, and at the same time the worst, group within the city have been from time to time granted extensions of their licences to slaughter. One of the difficulties surrounding the displacement of these obsolete, overcrowded and unfit premises, appears to be due to the fact that, were they vacated, there is no other place within the city to which the large number of butchers could go to slaughter their stock. Another appears to be that this city, like many others, belongs to that country known as England and Wales, which is practically the only civilized country in the world that has not yet come to realise the necessity of preparing raw food-stuffs under proper sanitary conditions, and under such control as to ensure their absolute freedom from disease.

The following carcasses, &c., have been destroyed as being unfit for human consumption during the year 1910:—

	Carcasses.				Plucks.			Lungs.			Hearts.		Livers.		Kidneys.		Heads.			Minced Meat.	Fat.	Sausage Skins.	Ox Tripe.	Other Offal.
	Beef.	Veal.	Mutton.	Pork.	Sheep.	Pig.	Calf.	Ox.	Sheep.	Pig.	Ox.	Pig.	Ox.	Sheep.	Ox.	Sheep.	Ox.	Sheep.	Pig.					
Tuberculosis ...	110½*	3	...	19	...	...	...	24	...	...	2	...	7	...	...	...	4	1	...	...	...	...	...	...
Swine Erysipelas ...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malignant Catarrh ...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Septicæmia ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pyrexia ...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Congestion ...	...	...	1	4 lbs.	1	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Pyæmia ...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Abscesses ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fatty Degeneration ...	...	...	...	...	...	...	1	9	...	...	...	...	15	...	...	...	...	...	...	...	...	...	...	...
Pleurisy ...	...	...	...	...	...	...	...	4	...	1	...	...	3	...	2	...	...	...	...	...	...	...	...	...
Pericarditis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Peritonitis ...	...	2	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Nephritis ...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cirrhosis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...
Dropsy and Emaciation ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Echinococcus Cysts ...	1	...	7	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
Chemical Poisoning ...	1	...	...	...	1	...	...	1	4	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...
(Unmarketable)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Traumatism ...	1 + 469 lbs.	½	1½	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Immaturity ...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Unwholesome ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Imperfect Bleeding ...	1	3	20	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Died in transit ...	1	5	14	16	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Natural death ...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Decomposition ...	89 lbs.	4	4	2	13	...	...	2	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...

* Among the beef condemned on account of tuberculosis is included a fore quarter of foreign beef which had been stripped of its lining membrane and sent into the city—by Rail.

TABLE No. 9.
THE FOLLOWING CARCASSES, &C., HAVE BEEN DESTROYED AS BEING UNFIT FOR HUMAN CONSUMPTION, DURING THE YEAR 1910.

PROSECUTIONS DURING YEAR 1910.

For not properly cleansing their slaughter-house premises, two occupiers were summoned and each fined 40/- and costs.

For depositing a diseased cow within a slaughter-house to slaughter for human consumption, the owner was fined £20 and costs, whilst the slaughterman was fined 10/- and costs for being in possession of the carcass.

For preparing food for human consumption from unsound maggoty fat, the proprietor of premises within the city was fined £5 and costs.

I have the honour to be, Sir,

Your obedient Servant,

THOMAS PARKER, F.R.C.V.S.

Veterinary Officer,

Inspector of Meat, Provisions, &c.

Health Department,

Town Hall,

Newcastle-on-Tyne,

20th March, 1911.

Summary of
Reports, &c.
made during
the year.

SUMMARY OF REPORTS MADE DURING 1910.

The following, among other matters, have been brought before the Sanitary Committee by the Medical Officer of Health during the year:—

INFECTIOUS DISEASE.

Typhus	...	...	...	...	...	Jan., July.
Notification of Phthisis	...	...	...	...	...	Jan.
Smallpox	...	...	...	...	...	Feb., March.
Diphtheria at Fleming Memorial Hospital	...	...	...	...	...	March.
Diphtheria and supply of Antitoxin to medical practitioners in the City	...	...	...	...	...	April, Nov.
Tuberculosis Exhibition	...	...	...	...	...	June.
Scarlet Fever in connection with a milk custom	...	...	...	...	...	July.
Itch among newspaper boys	...	...	...	...	...	Aug.
Measles and school attendance	...	...	...	...	...	Dec.

CITY HOSPITAL FOR INFECTIOUS DISEASES.

Tenders for coal	...	...	...	...	...	Feb.
Tenders for supplies	...	...	...	...	...	Feb.
Tenders for furnishings, patients' clothing, &c.	...	...	...	...	...	Apr., May.
Examination for Nurses...	...	...	...	...	...	May.
Tennis Court	...	...	...	...	...	May.
Fish supply	...	...	...	...	...	Oct.
Nurses with Enteric Fever	...	...	...	...	...	Dec.

SMALLPOX AND ISOLATION HOSPITALS, TOWN MOOR.

Re-opening of Isolation Hospital	...	...	...	...	...	April.
Caretakers	...	...	...	...	...	Sept., Nov., Dec.

LOCALITIES, ETC.

Houses unfit for habitation	...	...	...	...	...	Jan. (bis.), March, April (bis), Aug. (bis.) Sept., Dec.
Vegetable Market, Newgate Street—Deposit of Vegetables for sale on street	...	...	...	...	...	Jan., Aug.
Heaton Road and North View—Proposed Assembly Rooms	...	...	...	...	...	Feb. (bis).
Brewery Yard, Byker Bank—Slaughter House	...	...	...	...	...	Feb., May.
Ropery Walk, St. Anthony's—Pailclosets...	...	...	...	...	...	April, May.
Northumberland Road—Old Sewer	...	...	...	...	...	April.
Stotts House Farm, Walker—Drainage	...	...	...	...	...	Oct.
Sir W. G. Armstrong, Whitworth & Co.'s Shipyard, Walker—Houses closed in connection with	...	...	...	...	...	Nov.
Marshall Street—Dirty house	...	...	...	...	...	Dec.

GENERAL.

Bacteriological Examinations	...	...	...	...	...	Fortnightly.
Pollution of water through ball hydrants	...	...	...	...	...	Jan.
Tuberculous Milk	...	...	...	...	...	Jan. (bis.), May, June, July, Aug. (bis.)
Horse for Health Department	...	...	...	...	...	Jan., Dec.
Hides and Skins on Carriers' Carts	...	...	...	...	...	Jan., June.
Compensation to butchers for condemned carcasses	...	...	...	...	...	Jan.
Estimates of Expenditure for 1910-11	...	...	...	...	...	Jan.
Inspector Thomas Dodds—Application for increase of salary	...	...	...	...	...	Feb., Dec.
Dirty milk	...	...	...	...	...	Feb., Mar., April.
Barrasford Sanatorium	...	...	...	...	...	Feb.
Tenders for Inspectors' Uniforms	...	...	...	...	...	April, May, Sept., Oct.
Salary of Inspector of Nuisances	...	...	...	...	...	April.
Report of Special Committee as to Municipal Employés	...	...	...	...	...	May, June,
Bottle Feeding of infants—Circular to druggists, &c.	...	...	...	...	...	May.

Protection of meat carcasses during transit—Circular from Cold Storage and Ice Association	June.
Treatment of blood, &c., from slaughter houses	Aug., Sept.
Bakehouses not in conformity with F. and W. Act—Circular from National Association of Master Bakers and Confectioners	Aug.
Street watering, urinal flushing, and cleansing of privy pails and ashtubs	Aug., Sept.
Water Supply of Health Department	Aug.
Visit to Netherlands—Invitation to Medical Officer of Health from Netherlands Government	Aug., Oct.
Smoke Abatement League	Sept., Dec.
Breach of Midwives' Act, 1902, and Notification of Births Act, 1907	Sept.
Grading of Clerks in Health Department	Oct., Nov.
Royal Sanitary Institute Congress, Brighton—Report of Deputation	Oct.
Newcastle Improvement Bill—Spitting in public places	Oct.
Inspectors of Nuisances and power of entry to factories and workshops	Nov.
Offensive trades	Nov., Dec.
Report of Deputation as to Midland Cattle Products. Ltd., Birmingham and Barking	Nov.
Royal Sanitary Institute Congress, Belfast, 1911	Dec.
Ptomaine Poisoning	Dec.
Illness of Superintendent of Midwives	Dec.

INSANITARY DWELLINGS DEALT WITH.

UNDER THE NEWCASTLE-UPON-TYNE IMPROVEMENT ACT, 1882, SEC. 32.

Insanitary
Dwellings.

TENEMENT HOUSES.

	No. of	
	Houses.	Holdings.
<i>Closed.</i> —11, Prudhoe Place (cottages in yard)	2	2
216, Pilgrim Street (common lodging house)	1	—
38, St Ann Street and 1, White Boar Entry	2	4
71, Stepney Lane	1	1
	<hr/> 6	<hr/> 6

CELLAR DWELLINGS.

		(and 1 Common Lodging House) for 40 lodgers.	
<i>Closed.</i> —34, 65, 70, 78, 80, 81, 82, 92, 97, 99, 101, 106, 107, 108, Blenheim Street	14	...	19
10, Vine Lane	1	...	1
<i>Use as sleeping apartments discontinued</i> —			
29, 31, 35, 37, 41, 43, 47, 49, 53, 55, 59, White Street	11	...	11
89, 91, Blenheim Street	2	...	2
<i>Satisfactory alterations made</i> —			
74, 100, 102, Blenheim Street	3	...	3
<i>Plans submitted, but alterations not carried out at close of year</i> —			
63, 73, Blenheim Street	2	...	4
105, Blandford Street	1	...	1
<i>Tenant under notice to leave</i> —			
95, Blenheim Street	1	...	1
<i>Nothing done at close of year</i> —			
47, 49, 51, 61, 68, 71, 75, 76, 77, 79, 93, 103, 105, Blenheim Street	13	...	19
30, 34, 38, Back Rosedale Street	3	...	3
	<hr/> 57	<hr/>	<hr/> 70
		(and 1 Common Lodging House) for 40 lodgers.	

The following houses, proceedings in connection with which were begun in previous years, have been dealt with as follows :—

- 8, Brough's Buildings.—Put in habitable repair.
- 2, 3, 4, Wilson's Yard, and } Surveyed by Insanitary Dwellings Committee.
- 13, Wall Knoll, } Under consideration at close of year.
- Churchill Cottages (15 houses).—Closed.
- Vale Cottage, Jesmond Vale.—Closed.
- Diamond Row } Surveyed by Insanitary Dwellings Committee. No further
- } action to be taken for the present.
- Hemel's Row.—Alterations in progress.
- Battlehill Houses } Closing Order made, but time allowed owners to get
- } tenants out.

CELLAR DWELLINGS.

- 118, Blenheim Street.—Let as workshop.
- 55, 57, 85, 89, 92, 94, 103, 110, Blandford Street.—Satisfactory alterations made.
- 109, 111, Blandford Street.—Closed.

HOUSES BUILT DURING THE YEAR 1910.

House-
building.

The following return of houses built during the year under report is supplied through the courtesy of the City Engineer:—

Newcastle-upon-Tyne.						Houses Self-contained.	Houses of Two Flats each.
Benwell	...	...	...	...	...	5	51
Fenham	...	..	...	...	...	36	—
Elswick Township			...	...	...	1	4
Westgate Township			...	...	...	—	—
Byker Township	...	...	...	...	...	—	10
Jesmond Township	...	...	...	...	...	41	22
Heaton Township	...	...	...	...	...	51	7
St. Andrew's Parish	...	...	...	...	...	2	—
St. John's Parish	...	...	...	...	...	—	—
St. Nicholas' Parish	....	...	...	...	...	—	—
All Saints' Parish	...	...	...	...	...	—	—
Walker	...	...	...	...	...	31	5
						167	99
						(for 198 families.)	

New accommodation has thus been provided for 365 families, or at the rate of 5 persons to a family, 1,825 persons, as compared with accommodation estimated for 2,365 persons provided during 1909.

SANITARY ALTERATIONS.

Sanitary
Alterations.

22 plans for minor sanitary works have been examined and approved or otherwise by the Medical Officer of Health, and forwarded to the City Engineer for his consideration, as compared with 16 during the previous year.

HENRY E. ARMSTRONG, D.Hy.,

Health Department,
Town Hall,
Newcastle-upon-Tyne,
4th May, 1910.

Medical Officer of Health.

CITY AND COUNTY OF NEWCASTLE-UPON-TYNE, 1909.

APPENDIX A.

TABLE I.

POPULATION (ESTIMATED BY THE REGISTRAR-GENERAL TO THE MIDDLE OF THE YEAR), 285,951.

Registration Sub-districts and City.	Different Quarters of the Year.	Births Registered in 52 Weeks ended 31st December, 1910.			Deaths Registered in 52 Weeks ended 31st December, 1910.		
		Male.	Female.	Total.	Male.	Female.	Total.
Benwell	1st Quarter ...	120	119	239	46	38	84
	2nd „ ...	124	104	228	27	38	65
	3rd „ ...	117	107	224	34	35	69
	4th „ ...	107	113	220	47	42	89
	Total ...	468	443	911	154	153	307
Elswick	1st Quarter ...	167	192	359	154	113	267
	2nd „ ...	215	184	399	121	116	237
	3rd „ ...	182	180	362	124	88	212
	4th „ ...	190	167	357	132	138	270
	Total ...	754	723	1,477	531	455	986
St. Nicholas' ...	1st Quarter ...	120	122	242	48	54	102
	2nd „ ...	116	119	235	55	53	108
	3rd „ ...	114	123	237	60	55	115
	4th „ ...	97	119	216	61	60	121
	Total ...	447	483	930	224	222	446
St. Andrew's ...	1st Quarter ...	92	81	173	147	124	271
	2nd „ ...	95	84	179	145	115	260
	3rd „ ...	98	90	188	157	113	270
	4th „ ...	86	91	177	161	129	290
	Total ...	371	346	717	610	481	1,091
All Saints' ...	1st Quarter ...	122	120	242	44	47	91
	2nd „ ...	108	109	217	38	42	80
	3rd „ ...	123	125	248	64	51	115
	4th „ ...	121	114	235	47	49	96
	Total ...	474	468	942	193	189	382
Byker	1st Quarter ...	260	241	501	103	88	191
	2nd „ ...	255	264	519	91	83	174
	3rd „ ...	262	271	533	95	96	191
	4th „ ...	249	241	490	118	103	221
	Total ...	1,026	1,017	2,043	407	370	777
Walker	1st Quarter ...	62	74	136	33	28	61
	2nd „ ...	68	63	131	36	34	70
	3rd „ ...	66	65	131	34	29	63
	4th „ ...	67	58	125	36	33	69
	Total ...	263	260	523	139	124	263
City	1st Quarter ...	943	949	1,892	575	492	1,067
	2nd „ ...	981	927	1,908	513	481	994
	3rd „ ...	962	961	1,923	568	467	1,035
	4th „ ...	917	903	1,820	602	554	1,156
	Total ...	3,803	3,740	7,543	2,258	1,994	4,252

The Births represent a rate of 26·4, and the Deaths a rate of 14·9 per 1,000 estimated population.
The increase of Births over Deaths is 3,291 this year, as compared with 3,223 in 1909.

TABLE II.

RETURN OF DEATHS FROM ALL CAUSES AND AT ALL AGES IN THE REGISTRATION SUB-DISTRICTS AND ENTIRE CITY DURING THE 52 WEEKS ENDED 31ST DECEMBER, 1910.

CAUSE OF DEATH.	REGISTRATION SUB-DISTRICTS AND CITY.							
	CITY.	Benwell.	Elswick.†	St. Nicholas'.	St. Andrew's.†	All Saints'.	Byker.	Walker.*
Smallpox	1	...	...	...	1	...	...	...
Measles	87	4	11	12	13	13	27	7
Scarlet Fever	12	...	2	...	...	...	...	10
Epidemic Influenza	18	4	7	...	5	1	...	1
Whooping Cough	79	6	10	9	2	15	27	10
Diphtheria	39	4	2	2	4	1	1	25
Membranous Croup	1	...	...	...	...	...	1	...
Croup	4	...	1	2	...	...	1	...
Enteric Fever	9	...	1	...	...	...	...	8
Diarrhœa, Dysentery	29	8	6	3	3	6	3	...
Epidemic or Zymotic Enteritis	74	8	8	17	17	4	11	9
Epidemic Cerebro-Spinal Meningitis	4	2	...	...	1	...	...	1
Anthrax, Splenic Fever	1	...	...	...	1	...	...	...
Syphilis	15	1	...	5	2	1	5	1
Erysipelas	4	...	1	...	1	1	1	...
Pyæmia, Septicæmia	11	...	...	...	9	...	...	2
Puerperal Fever	2	...	...	...	2	...	...	...
Other Septic Diseases	11	...	...	1	8	...	2	...
Rheumatic Fever, Rheumatism of Heart	13	...	4	2	3	1	3	...
Tetanus	3	...	1	...	2	...	...	...
Tubercular Disease of Brain or Meninges, Acute Hydrocephalus	72	4	21	8	17	7	10	5
Laryngeal and Pulmonary Phthisis	331	24	107	40	51	32	63	14
Tabes Mesenterica, Tubercular Disease of Intestine	15	...	3	1	1	5	5	...
General Tuberculosis, Tubercular Disease of Undefined Position	12	...	3	...	2	1	5	1
Other forms of Tuberculosis, Scrofula	81	9	16	5	27	5	10	9
<i>Total Tuberculosis</i>	<i>511</i>	<i>37</i>	<i>150</i>	<i>54</i>	<i>98</i>	<i>50</i>	<i>93</i>	<i>29</i>
Starvation, Want of Breast Milk	2	...	1	1	...	...	...	...
Rickets	15	1	4	6	4	...	...	...
Chronic Alcoholism	3	...	...	1	1	1	...	...
Acute Alcoholism, Delirium Tremens	2	...	...	1	...	...	1	...

TABLE II.—CONTINUED.

RETURN OF DEATHS FROM ALL CAUSES AND AT ALL AGES IN THE REGISTRATION SUB-DISTRICTS AND ENTIRE CITY DURING THE 52 WEEKS ENDED 31ST DECEMBER, 1910.

CAUSE OF DEATH.	REGISTRATION SUB-DISTRICTS AND CITY.							
	City.	Benwell,	Elswick.†	St. Nicholas.	St. Andrew's ‡	All Saints.	Byker.	Walker.*
Osteo-arthritis, Rheumatoid Arthritis	2	...	...	...	2	...	...	...
Gout	1	...	...	...	1	...	...	...
Cancer	286	12	63	24	129	14	37	7
Diabetes Mellitus	34	1	7	3	14	2	6	1
Purpura Hæmorrhagica	1	...	...	...	1	...	...	...
Anæmia, Leucocythæmia	19	...	1	...	11	...	5	2
Lymphadenoma	3	...	...	...	3	...	...	...
Premature Birth	142	15	33	10	13	23	36	12
Debility at Birth	102	10	16	8	4	18	36	10
Injury at Birth	5	...	...	2	1	...	2	...
Atelectasis	14	1	2	...	4	3	1	3
Malformation of Heart	5	...	1	...	...	...	4	...
Spina Bifida, Hydrocephalus	5	...	2	...	2	...	1	...
Imperforate Anus	3	...	...	1	2	...	...	...
Cleft Palate, Hare-lip	4	...	...	1	1	...	1	1
Other Congenital Defects	31	3	11	7	4	2	4	...
Old Age, Senile Decay	279	12	129	23	20	20	54	21
Inflammation of Brain or Membranes	39	3	4	4	10	5	11	2
Convulsions	113	17	20	12	10	20	26	8
Apoplexy	187	13	64	26	28	10	35	11
Softening of Brain	12	1	2	...	5	...	4	...
Hemiplegia, Brain Paralysis	21	1	6	1	4	2	6	1
Paralysis Agitans	2	...	...	...	...	...	2	...
Insanity, General Paralysis of Insane	13	...	10	...	2	...	1	...
Chorea	3	...	...	...	2	1	...	...
Epilepsy	26	2	7	2	2	3	4	6
Laryngismus Stridulus	2	...	1	1	...	...	...	...
Paraplegia, Disease of Spinal Cord	14	...	4	...	4	1	5	...
Other and Undefined Diseases of Brain or Nervous System	30	2	9	3	12	...	3	1
Otitis, Otorrhœa	6	...	1	...	5	...	...	...
Endocarditis, Valvular Diseases of the Heart	86	3	27	5	33	1	15	2
Pericarditis	3	...	...	...	1	...	2	...
Angina Pectoris	8	...	...	1	4	...	1	2
Aneurism	10	...	1	2	5	1	1	...
Senile Gangrene	20	1	8	1	8	...	2	...
Embolism, Thrombosis	5	...	2	...	1	...	1	1
Phlebitis	1	...	1	...	...	...	...	...

TABLE II.—CONTINUED.

RETURN OF DEATHS FROM ALL CAUSES AND AT ALL AGES IN THE REGISTRATION SUB-DISTRICTS AND ENTIRE CITY DURING THE 52 WEEKS ENDED 31ST DECEMBER, 1910.

CAUSE OF DEATH.	REGISTRATION SUB-DISTRICTS AND CITY.							
	CITY.	Benwell.	Elswick.†	St. Nicholas'.	St. Andrew's.†	All Saints'.	Byker.	Walker.*
Varicose Veins	1	...	...	...	...	...	1	...
Other and Undefined Diseases of Heart and Circulatory System	299	23	84	28	79	26	51	8
Laryngitis	10	...	1	2	...	3	3	1
Other Diseases of Larynx and Trachea	1	...	...	...	1	...	...	...
Bronchitis	315	27	78	55	36	41	66	12
Lobar, Croupous Pneumonia	46	8	10	5	11	...	4	8
Lobular, Broncho-Pneumonia	161	17	26	17	24	24	46	7
Pneumonia, form not stated	101	10	16	11	33	10	18	3
Emphysema, Asthma	15	2	5	2	2	1	3	...
Pleurisy	16	...	7	2	4	...	2	1
Other and Undefined Diseases of Respiratory System	19	1	2	1	8	1	6	...
Sore Throat, Quinsy	2	...	...	1	...	...	...	1
Diseases of Stomach	56	8	13	4	17	6	5	3
Enteritis	50	5	7	6	25	1	5	1
Cirrhosis of Liver	40	2	8	6	19	2	2	1
Obstruction of Intestine	60	1	2	2	50	2	2	1
Peritonitis	19	...	...	...	14	1	4	...
Other Diseases of Digestive System	29	2	7	...	16	2	1	1
Diseases of Lymphatic System	1	...	...	...	1	...	...	...
Acute Nephritis	90	7	16	7	30	9	15	6
Bright's Disease, Albuminuria	31	1	9	6	7	2	6	...
Calculus	2	...	...	1	...	...	1	...
Disease of Bladder and of Prostate	44	1	...	...	22	...	2	...
Other and Undefined Diseases of Urinary System	26	4	10	1	25	2	3	1
Diseases of Ovaries	1	...	...	...	1	...	...	...
Abortion, Miscarriage	3	...	...	1	1	...	...	1
Puerperal Mania	1	...	...	...	...	...	1	...
Puerperal Convulsions	2	...	...	...	...	1	1	...
Placenta Prævia, Flooding	2	1	1	...	...	...	...	...
Other and Undefined Accidents of Childbirth	14	2	4	3	2	1	2	...

TABLE II.—CONTINUED.

RETURN OF DEATHS FROM ALL CAUSES AND AT ALL AGES IN THE REGISTRATION SUB-DISTRICTS AND ENTIRE CITY DURING THE 52 WEEKS ENDED 31ST DECEMBER, 1910.

CAUSE OF DEATH.	REGISTRATION SUB-DISTRICTS AND CITY.							
	CITY.	Benwell.	Elswick.†	St. Nicholas'.	St. Andrew's.‡	All Saints'.	Byker.	Walker.*
Arthritis, Ostitis, Periostitis	10	...	1	...	7	1	1	...
Other and Undefined Diseases of Organs of Locomotion	8	1	2	...	3	...	1	1
Ulcer, Bed sore	9	...	2	1	4	1	1	...
Other and Undefined Diseases of Integumentary System	4	1	...	...	2	1	...	...
<i>Deaths from Accident or Negligence—</i>								
In Mines and Quarries	12	...	...	1	10	...	...	1
By Vehicles and Horses	11	...	1	1	9	...	...	...
On Railways	11	1	...	1	9	...	...	...
On Ships, Boats, and Docks (other than Drowning)	1	...	...	...	1	...	...	...
In Building Operations	1	...	...	...	1	...	...	...
By Machinery	6	...	1	...	5	...	...	...
Burns and Scalds	29	1	2	...	24	1	...	1
Poisons, Poisonous Vapours	3	...	1	1	1	...	...	...
Drowning	13	1	3	4	...	3	...	2
Suffocation, overlaid in bed	7	...	1	3	1	1	...	1
Suffocation, otherwise	7	1	2	...	2	...	2	...
Falls	21	...	2	1	14	3	1	...
Otherwise and not stated	13	1	1	1	8	...	1	1
Homicide	3	...	...	...	3	...	...	...
Suicide	31	2	2	4	10	1	9	3
Execution	1	...	...	...	...	1	...	...
Sudden Death (cause not ascertained)	1	...	...	1	...	...	...	...
Other Ill-defined and not Specified Causes	106	4	18	13	25	14	29	3
TOTAL	4,252	307	986	446	1,091	382	777	263

† Includes Union Workhouse.

‡ Includes new Royal Victoria Infirmery and Fleming Memorial
Hospital for Sick Children.

* Includes City Hospital for Infectious Diseases.

TABLE III.

RETURN OF DEATHS UNDER ONE YEAR OF AGE OCCURRING IN THE CITY
DURING THE 52 WEEKS ENDED 31ST DECEMBER, 1910.

CAUSE OF DEATH,	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	TOTAL.
Measles ... ..	...	2	9	6	17
Scarlet Fever	1	...	...	...	1
Whooping Cough	5	5	9	19	38
Diarrhœa, Dysentery	4	7	5	1	17
Epidemic or Zymotic Enteritis	1	2	33	11	47
Syphilis	1	3	7	2	13
Erysipelas	1	...	...	...	1
Pyæmia, Septicæmia ... ..	...	...	1	...	1
Other Septic Diseases	1	...	...	...	1
Tetanus	1	...	...	...	1
Tubercular Disease of Brain or Meninges, Acute Hydrocephalus	3	6	4	2	15
Laryngeal and Pulmonary Phthisis ... ..	...	2	...	...	2
Tabes Mesenterica, Tubercular Disease of Intestine	1	2	1	1	5
Other forms of Tuberculosis, Scrofula	2	3	1	4	10
<i>Total Tuberculosis</i>	6	13	6	7	32
Starvation, Want of Breast Milk ... ..	...	2	...	...	2
Rickets	2	...	2	2	6
Premature Birth	44	23	43	32	142
Debility at Birth	25	21	23	33	102
Injury at Birth	1	2	...	2	5
Atelectasis	5	...	1	7	13
Malformation of Heart ... ..	...	1	3	1	5
Spina Bifida, Hydrocephalus	3	...	1	...	4
Imperforate Anus ... ..	...	2	1	...	3
Cleft Palate, Hare-lip... ..	1	2	...	1	4
Other Congenital Defects	8	7	11	4	30
Inflammation of Brain or Membranes	3	1	2	2	8
Convulsions	25	18	26	24	93
Epilepsy ... ..	...	1	2	...	3
Paraplegia, Disease of Spinal Cord	1	...	1	...	2
Otitis, Otorrhœa	1	...	...	...	1
Diseases of Heart and Circulatory System	1	...	...	...	1
Laryngitis	1	2	...	1	4
Bronchitis	27	18	15	44	104
Lobar, Croupous Pneumonia ... ..	...	...	...	1	1
Lobular, Broncho-Pneumonia	15	7	17	27	66
Pneumonia, form not stated	4	4	1	5	14
Other and Undefined Diseases of Res- piratory System	2	1	...	2	5
Diseases of Stomach	2	7	7	1	17
Enteritis	7	3	3	7	20
Obstruction of Intestine	4	4	2	...	10
Other Diseases of Digestive System	1	1	4	1	7
Acute Nephritis ... ..	...	1	...	...	1
Diseases of Organs of Locomotion ... ..	...	...	1	...	1
Burns and Scalds ... ..	...	1	1	...	2
Drowning ... ..	...	...	1	...	1
Suffocation, overlaid in bed	1	3	2	1	7
Suffocation, otherwise	3	1	...	...	4
Other Ill-defined and not Specified Causes	17	18	17	19	71
TOTAL	225	183	257	263	928

TABLE IV.

DEATHS OF INFANTS UNDER ONE YEAR OF AGE.

Under one week ...	...	...	...	...	...	204
One week and under two weeks	...	...	...	...	...	38
Two " " three "	...	...	...	...	...	39
Three " " four "	...	...	...	...	...	35
Total under one month	...	...	...	...	...	316
One month and under two months	...	...	...	...	...	118
Two " " three "	...	...	...	...	...	71
Total under three months	...	...	...	...	...	505
Three months and under four months	...	...	...	...	...	64
Four " " five "	...	...	...	...	...	53
Five " " six "	...	...	...	...	...	59
Total under six months	...	...	...	...	...	681
Six months and under seven months	...	...	...	...	...	42
Seven " " eight "	...	...	...	...	...	40
Eight " " nine "	...	...	...	...	...	49
Total under nine months	...	...	...	...	...	812
Nine months and under ten months	...	...	...	...	...	37
Ten " " eleven "	...	...	...	...	...	38
Eleven " " twelve "	...	...	...	...	...	41
Total under one year	...	...	...	...	...	928

TABLE V.

SUMMARY OF INFANTILE MORTALITY—TEN YEARS, 1901-10.

	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910
<i>Infantile Death-rate per 1,000 births ...</i>	177	139	166	155	138	153	126	139	122	123
<i>Death-rate of Infants under 3 months per 1,000 births ...</i>	83·8	74·8	84·9	82·6	71·6	75·6	68·6	76·6	64·8	66·9
<i>Death-rate per 1,000 births of Infants from Premature Birth ...</i>	20·1	20·7	25·1	20·9	19·7	22·0	21·2	24·8	19·8	18·8
<i>Death-rate per 1,000 births of Infants from Premature Birth plus all Congenital Causes *</i>	40·8	51·7	62·1	60·6	52·1	61·5	43·0	44·6	42·3	42·6
<i>Death-rate per 1,000 births of Infants from Diarrhœa and all other Digestive Diseases †</i>	45·7	12·8	26·9	21·8	22·4	35·2	12·7	24·8	13·5	16·7

* "All Congenital Causes" includes Syphilis, Debility at Birth, Injury at Birth, Atelectasis, Malformation of Heart, Spina Bifida, Hydrocephalus, Imperforate Anus, Cleft Palate, Hare-Lip, other Congenital Defects, and other and undefined Accidents of Childbirth.

† "Diarrhœa and all other Digestive Diseases" includes Diarrhœa, Dysentery, Epidemic or Zymotic Enteritis, Thrush, Starvation, Want of Breast Milk, Rickets, Sore Throat, Quinsy, Diseases of Stomach, Enteritis, Cirrhosis of Liver, Obstruction of Intestine, Peritonitis, and other Diseases of Digestive System,

TABLE VI.

ANNUAL DEATH-RATE FROM ALL CAUSES AND FROM THE "CHIEF ZYMOTIC DISEASES" PER 1,000 LIVING IN NEWCASTLE, COMPARED WITH THE AVERAGE RATES IN THE LARGE TOWNS IN THE UNITED KINGDOM.

	All Causes.		"Chief Zymotic Diseases."*	
	1910.		1910.	
	Average in 77 Towns.	Rate in New-castle.	Average in 77 Towns.	Rate in New-castle.
1st Quarter ...	14·8†	14·9	0·97†	0·56
2nd „ ...	12·6	13·9	1·14	0·73
3rd „ ...	11·6	14·5	1·54	1·83
4th „ ...	14·6	16·2	1·29	1·51
Annual Rate ...	13·4	14·9	1·23	1·16

* Smallpox, Scarlet Fever, Diphtheria, Typhus, Enteric, and Continued "Fevers," Measles, Whooping Cough, and Diarrhœa, which now includes Dysentery, Epidemic and Zymotic Enteritis, and Intestinal Catarrh.

† 76 Towns.

TABLE VII.—AGES AT DEATH.

Periods.	REGISTRATION SUB-DISTRICTS.							
	Total in City.	Benwell.	Elswick.	St. Nicholas'.	St. Andrew's.	All Saints'.	Byker.	Walker.
Under 1 Year... ..	928	100	158	118	119	121	242	70
1 Year & under 5 Years	531	46	84	57	123	65	98	58
5 Years „ 20 „	315	21	38	30	127	27	39	33
20 „ „ 40 „	524	38	114	50	193	39	68	22
40 „ „ 60 „	807	36	191	85	273	61	127	34
60 „ „ 80 „	980	51	337	90	224	59	176	43
80 „ and upwards	167	15	64	16	32	10	27	3
Total (all ages) dying during 52 weeks ended 31st December, 1910 }	4,252	307	986	446	1,091	382	777	263

TABLE VIII.

ENTERIC FEVER IN RELATION TO THE ELIMINATION OF THE CONSERVANCY
SYSTEM OF DISPOSAL OF EXCRETA DURING THE LAST 20 YEARS.

YEAR.	CITY ENGINEER'S CENSUS OF		ENTERIC FEVER.	
	Number of Dry Closets in the City.	Number of Water Closets in the City.	No. of Cases.	Attack Rate per 1000 population.
1891	8,244	21,966	134	0·71
1892	8,640	24,749	97	0·50
1893	8,566	25,822	141	0·73
1894	8,515	26,997	164	0·81
1895	8,661	27,848	213	1·03
1896	8,867	28,977	176	0·83
1897	8,982	29,931	138	0·63
1898	9,317	31,158	307	1·38
1899	7,689	33,030	133	0·58
1900	7,966	33,708	79	0·34
1901	7,956	34,408	76	0·35
1902	7,863	35,323	57	0·26
1903	7,613	36,661	75	0·34
1904	7,313	37,985	30	0·13
1905	9,741*	42,175	50	0·19
1906	9,501	43,348	70	0·26
1907	9,237	43,460	66	0·24
1908	9,109	44,803	111	0·40
1909	8,781	45,468	74	0·26
1910	8,428	46,458	63	0·22

* The large increase in the number of dry closets in 1905 is due to the incorporation of Walker and Benwell in November, 1904, these districts having a privy-box system.

The proportion of Dry Closets to Water Closets has thus fallen from 1 to 2·66 in 1891 to 1 to 5·5 in 1910, while the Enteric incidence is roughly one-fourth of what it was.

TABLE IX.
CITY AND COUNTY OF NEWCASTLE-UPON-TYNE.
MORTALITY FROM INFECTIOUS AND CERTAIN OTHER DISEASES DURING THE PERIOD OF THE NOTIFICATION OF INFECTIOUS DISEASES.

YEAR.	POPULATION.	GENERAL DEATH RATE.	INFANTILE MORTALITY (Deaths per 1,000 Births).	ZYMOTIC DEATH RATE.	DIARRHŒA.			SMALLPOX.			TYPHUS.		ENTERIC FEVER.				DIPHTHERIA.				SCARLET FEVER.				ERYSIPELAS.				MEASLES.		PHTHISIS.		PUERPERAL SEPTICÆMIA.		CANCER.		
					Number of Deaths.	Death Rate per 1,000 Population.	Cases Notified.	Number of Deaths.	Case Mortality per cent.	Death Rate per 1,000 Population.	Cases Notified.	Number of Deaths.	Cases Notified.	Number of Deaths.	Case Mortality per cent.	Death Rate per 1,000 Population.	Cases Notified.	Number of Deaths.	Case Mortality per cent.	Death Rate per 1,000 Population.	Cases Notified.	Number of Deaths.	Case Mortality per cent.	Death Rate per 1,000 Population.	Cases Notified.	Number of Deaths.	Case Mortality per cent.	Death Rate per 1,000 Population.	Number of Deaths.	Death Rate per 1,000 Population.	Number of Cases Notified.	Number of Deaths.	Number of Deaths.	Death Rate per 1,000 Population.			
1883	149,464	25·4	168	4·3	105	0·70	493	60	12·2	0·40	96	24	216	42	19·4	0·28	29	11	37·9	0·07	1,152	124	10·8	0·83	NOT NOTIFIABLE.	...	...	...	209	1·40	...	...	7	1	...	...
1884	151,325	23·5	156	3·2	164	1·08	174	12	7·0	0·08	17	6	260	47	18·1	0·31	76	16	21·0	0·10	2,167	156	7·2	1·03		10	...	0·07	15	0·10	329	2·2	16	9	73	0·48	
1885	153,209	26·0	174	4·4	113	0·74	70	3	4·3	0·02	9	7	253	56	22·1	0·36	93	26	28·0	0·17	1,227	83	6·8	0·54		16	...	0·10	359	2·34	368	2·4	11	4	64	0·42	
1886	155,117	22·2	156	2·5	147	0·95	5	...	...	...	1	...	205	34	16·6	0·22	73	19	26·0	0·12	1,004	45	4·5	0·29		12	...	0·08	42	0·27	362	2·3	14	11	81	0·52
1887	157,048	25·2	174	3·3	115	0·73	7	...	...	...	37	4	325	42	12·9	0·27	90	31	34·4	0·20	1,208	38	3·1	0·24		19	...	0·12	211	1·34	341	2·2	10	4	77	0·49
1888	159,003	20·5	138	1·4	66	0·42	...	...	...	...	4	1	122	23	18·9	0·14	97	33	34·0	0·21	749	24	3·2	0·15		5	...	0·03	10	0·06	348	2·2	5	3	115	0·72
1889	160,983	25·0	175	3·0	198	1·23	...	...	...	...	7	2	136	19	14·0	0·12	96	30	31·2	0·19	601	30	5·0	0·19		13	...	0·09	94	0·58	387	2·4	2	2	73	0·45
1890	162,987	26·2	169	2·1	157	0·96	4	...	...	...	17	3	198	35	17·7	0·21	181	44	24·3	0·27	613	26	4·2	0·16		25	...	0·15	7	0·04	383	2·3	4	3	92	0·56
1891	187,502	23·6	175	2·5	83	0·44	...	...	...	...	19	2	134	24	17·9	0·13	121	42	34·7	0·22	785	39	5·0	0·21		11	...	0·06	128	0·68	398	2·1	5	2	107	0·57
1892	192,205	19·5	150	1·5	73	0·38	4	1	25·0	0·005	..	...	97	14	14·4	0·07	156	41	26·3	0·21	963	29	3·0	0·15		8	...	0·04	67	0·35	409	2·1	7	2	105	0·55
1893	197,026	20·8	174	2·3	154	0·78	25	...	...	...	3	2	141	25	17·7	0·13	171	28	16·4	0·14	693	23	3·3	0·12		8	...	0·04	208	1·06	347	1·2	4	2	123	0·62
1894	201,947	18·0	157	1·9	79	0·39	2	...	...	...	..	...	164	30	18·3	0·15	112	27	24·1	0·13	826	27	3·3	0·13		7	...	0·03	94	0·47	370	1·8	4	1	116	0·57
1895	207,021	20·0	186	2·1	152	0·73	...	...	...	...	...	...	213	48	22·5	0·23	174	49	28·2	0·24	959	26	2·7	0·13		3	...	0·01	140	0·68	406	2·0	13	5	141	0·68
1896	212,223	18·4	165	1·8	77	0·36	...	...	...	...	...	...	176	33	18·7	0·16	164	34	20·7	0·16	896	23	2·6	0·11		6	...	0·03	133	0·63	401	1·9	6	5	142	0·67
1897	217,555	18·7	177	1·6	142	0·65	...	...	...	...	...	...	138	33	23·9	0·15	102	19	18·6	0·09	496	24	4·8	0·11		4	...	0·02	96	0·44	375	1·7	7	3	143	0·66
1898	223,021	20·9	190	2·2	146	0·65	17	3	17·6	0·01	...	...	307	66	21·5	0·30	89	27	30·3	0·12	692	26	3·8	0·12		5	...	0·02	125	0·56	412	1·8	2	...	174	0·78
1899	228,625	20·2	193	1·6	146	0·64	...	...	...	...	1	1	133	22	16·5	0·10	107	25	23·4	0·11	622	28	4·5	0·12		12	...	0·05	79	0·35	398	1·7	3	...	161	0·70
1900	234,369	19·1	169	1·2	83	0·35	2	1	79	18	22·8	0·08	101	27	26·7	0·12	603	20	3·3	0·09		141	7	5·0	0·03	87	0·37	405	1·7	4	2	174	0·74
1901	215,715	21·2	177	2·2	249	1·2	25	1	4·0	0·005	2	...	76	12	15·8	0·06	146	36	24·7	0·17	1,389	42	3·0	0·19		135	11	8·1	0·05	68	0·32	428	2·0	3	1	214	0·99
1902	219,021	19·6	139	1·6	57	0·26	13	1	7·7	0·005	1	1	57	8	14·0	0·04	133	21	15·8	0·10	1,382	59	4·3	0·27		179	10	5·6	0·05	137	0·63	357	1·6	1	1	197	0·90
1903	222,241	18·6	166	1·1	118	0·53	155	9	5·8	0·04	3	...	75	9	12·0	0·04	147	36	24·5	0·16	1,175	31	2·6	0·14	191	9	4·7	0·04	12	0·05	371	1·7	7	4	200	0·90	
1904	225,362	18·8	155	1·5	99	0·44	351	17	4·8	0·08	...	...	30	7	23·3	0·03	235	47	20·0	0·21	886	25	2·8	0·11	206	8	3·9	0·04	56	0·25	377	1·7	5	5	209	0·93
1905	264,511	17·4	138	1·3	144	0·54	103	2	1·9	0·008	...	...	50	11	22·0	0·04	288	52	18·1	0·20	705	14	2·0	0·05	213	7	3·3	0·03	37	0·14	397	1·5	5	4	231	0·87
1906	268,721	18·0	153	2·1	257	0·95	8	...	...	...	...	...	70	13	18·6	0·05	364	66	18·1	0·25	733	17	2·3	0·06	187	5	2·7	0·02	163	0·61	401	1·5	6	2	222	0·83
1907	272,969	16·8	125	1·4	46	0·17	1	...	...	...	3	...	66	11	16·6	0·04	383	52	13·6	0·19	614	22	3·6	0·08	180	4	2·2	0·01	116	0·42	398	1·5	4	2	238	0·87
1908	277,257	17·3	139	1·3	145	0·52	...	...	...	...	...	...	111	14	12·6	0·05	335	36	10·7	0·15	394	10	2·5	0·04	147	1	0·7	0·004	30	0·11	387	1·4	6	2	279	1·01
1909	281,584	15·9	122	1·2	50	0·18	...	...	...	...	6	...	74	19	25·7	0·07	456	58	12·7	0·26	844	34	4·0	0·12	169	2	1·2	0·007	112	0·40	344	1·2	11	3	264	0·94
1910	285,951	14·9	123	1·2	103	0·36	3	1	33·3	0·003	10	...	63	9	14·3	0·03	443	40	9·0	0·14	574	12	2·1	0·04	182	4	2·2	0·01	87	0·30	331	1·2	4	2	286	1·0	

APPENDIX B.



CITY AND COUNTY OF NEWCASTLE-UPON-TYNE.

REPORT

OF THE

SANITARY COMMITTEE

RELATIVE TO THE RECENT

TUBERCULOSIS EXHIBITION

HELD UNDER THE AUSPICES OF THE
NEWCASTLE CORPORATION.

July, 25th—August 6th, 1910.

Newcastle-upon-Tyne :
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REPORT OF THE SANITARY COMMITTEE
RELATIVE TO THE RECENT
TUBERCULOSIS EXHIBITION
HELD UNDER THE AUSPICES OF THE
NEWCASTLE CORPORATION.

The Council, on 11th July, 1910, approved of the recommendation of the Sanitary Committee that arrangements be made for a visit to Newcastle of the Tuberculosis Exhibition of the National Association for the Prevention of Consumption, etc., and authorised the expenditure of the sum of, say, £100 to cover the cost of carrying out the proposal. The Sanitary Committee now beg to submit the following report on the subject:—

On the invitation of the Sanitary Committee, the National Association for the Prevention of Consumption sent its Exhibition to Newcastle for the fortnight July 25th to August 6th, 1910, inclusive. Accommodation was obtained in the large hall of the Co-operative Society, Darn Crook, where every assistance and facility was found, through the courtesy and sympathy of the Secretary of the Society (Mr. Howatt), the manager of the retail department (Mr. Thwaites), and the Café Manager (Mr. Urwin.) Besides the special clerk (Mr. A. Austin), the following extra assistants were engaged:—one commissionaire and two handymen. Carpenters, &c., were supplied by the Co-operative Society to help in the arrangement and erection of the exhibits, and the dismantling afterwards.

The National Society's Exhibition was accompanied by a caretaker (Mr. Mycock), while the Edinburgh and Barrasford exhibits were each looked after throughout the fortnight by a nurse from the respective sanatoria represented, viz.: Sister Djurberg, from Edinburgh, and Nurse Widowfield, from Barrasford.

Councillor George Smith was good enough to superintend personally the house to house distribution of illustrated advertisement handbills, some 40,000 of which were sent out to the poorer districts of the city. About 20,000 others were given away in the exhibition. By the courtesy of the chairman of the

Tramways Committee, advertisement bills were placed in the cars on certain routes.

The opening ceremony, at 2 p.m., on the 25th July, was performed by the Lord Mayor, Sir Henry W. Newton presiding. On the platform were also Lord Armstrong (Chairman of the Barrasford Sanatorium Committee), Sir George Hare Philipson (president of the College of Medicine and chairman of the Royal Victoria Infirmary Committee), Mr. Howatt, (secretary, Co-operative Society), Mr. D. Mahon (secretary, Friendly Societies), and a number of other gentlemen representative of various local public interests.

The arrangement of the exhibits was as follows: On the entrance landing was the pathological section, consisting of wax models, bones, specimens of tuberculous meat, photographs, charts, diagrams, &c., all from local sources. In the large hall was the National Association's exhibit, together with those from Barrasford and Stannington. Lastly, in an adjoining room, was the children's section, an excellent and unique exhibit, almost entirely the personal work of Miss Renaud, Superintendent of Midwives, who was in charge of it throughout.

The evening lectures, which proved highly popular, were to have been held in a room adjoining the children's section. This, however, was found from the outset to be quite inadequate, and by the kindness of the Café Manager, a change was made to the large café room on the floor below, for the use of which no extra charge was made. This was not available on the Saturday evenings, and accordingly the hall of the Socialist Institute, across the street, was taken on those two nights. In spite of the increased accommodation thus provided, it was found necessary to repeat the lectures twice, and usually thrice, each evening. The mornings were almost entirely occupied with the visits of the older children from the elementary schools; 2,233 of these were conducted round, everything being carefully explained to them. The Inspector of the Board of Education (London) visited the Exhibition one morning, and expressed himself well pleased with the arrangements made. It was quite a usual proceeding for children to bring their parents later on, and to describe to them all they had themselves learnt.

The total attendance during the fortnight was 25,816 persons including the scholars, which gives a daily average of over 2,000

visitors. 4,042 persons attended the ten lectures, or an average of 400 each night, many besides having to be turned away. A most gratifying feature of the Exhibition was the fact that the visitors were almost entirely drawn from the working classes, many of the very poorest being in evidence.

At every point the great necessity for fresh air and cleanliness was strongly emphasised, and signs are not wanting from many sources that the lessons are already having good practical effect.

Another most valuable result of the Sanitary Committee's venture is the close co-operation that took place between their officers and the representatives of many of the most important sociological institutions of the city—Friendly Societies, Trade Unions, various Charities, Guild of Help, religious bodies, the Education Committee, and so forth. Nothing but good can accrue from the keen interest displayed by all of these, many of whom intend to carry on the crusade thus begun. The local press also were sympathetic, and did much to advertise the Exhibition.

Appended are details of the expenditure involved. It was estimated that £100 would cover the cost, but owing partly to the inconvenience caused by the railway strike, partly to the extreme shortness of the notice (barely two weeks), and largely to the fact that the Exhibition was kept open for a fortnight instead of for a week as originally intended, the bill of costs has proved larger than was anticipated. It is hoped, however, that the committee will take the view that the cost was more than justified by the result.

In conclusion, the committee draw attention to their indebtedness to those who so heartily co-operated with them:—The Right Honourable the Lord Mayor, the National Association for the Prevention of Consumption, the College of Medicine, the Lecturers, the Barrasford and Stannington Sanatoria Committees, Dr. Philip, of Edinburgh (who sent a Hospital Sister free of charge), the Co-operative Society, the various local Associations, &c., and the Press. Of the actual officers to whom in no small degree the success of the committee's venture is due, special mention must be made of Miss Renaud and Mr. A. Austin, each of whom spent over 160 hours in the Exhibition during the fortnight it was open to the public.

The following is a statement of the expenses incurred in connection with the Exhibition :—

	£	s.	d.
Removal and Carriage of Exhibition	22	0	0
Newcastle Co-operative Society (Hire of Hall)...	5	0	0
Socialist Institute (Hire of Hall)	2	0	0
Cleaning of Hall during the Exhibition	2	5	6
Insurance	0	8	6
Clerk (four weeks)	10	10	0
Commissionaire's Services	5	10	6
Checkers' Wages	4	9	0
Newcastle Co-operative Society (Services of Staff) ...	3	10	0
" " (Luncheons and Teas)...	8	11	6
Mr. S. Bates's Expenses (Lectures, &c.)	5	0	0
Sister Djurberg, Edinburgh (Train Fare, &c.)...	1	9	11
Miss Renaud (Special Allowance)	5	0	0
Local Papers (Advertising)	18	6	2
National Health Society (Leaflets)	5	5	0
The Proprietors of the <i>Medical Officer</i> (Handbills) ...	47	8	0
Messrs. Easey & Best (Printing)	6	0	6
Morris, The Writer, Ltd. (Posters, Charts, &c.) ...	18	4	6
Messrs. Southwell & Co. (Loan of Cash Box Model) ...	2	2	0
John Watson (Lantern, &c.)... ..	6	0	0
Mr. J. Mitchell (Photographs for Lantern Slides) ...	0	4	6
Distribution of Handbills	17	17	0
Petty Cash (Postages, &c.)	7	14	8
	<hr/>		
	£204	17	3
	<hr/>		

The expenditure authorised by the Council on 11th July, 1910, has, therefore, been exceeded. This is chiefly accounted for by the fact that the Exhibition extended over a period of a fortnight instead of one week as originally intended, but having regard to the nature of the exhibition, and the great interest taken in it by vast numbers of the people of Newcastle for whom it was more particularly intended, and to the immense benefits which may ensue from the diffusion of information on the important subject of the prevention of consumption, the committee anticipate that the Council will readily confirm the holding of the Exhibition for the longer period of a fortnight; and they therefore recommend the Council to sanction the additional expenditure incurred.

Dated this 29th day of August, 1910.

HENRY W. NEWTON, Chairman.

Presented to the Council 7th September, 1910.

Confirmed 7th December, 1910.

APPENDIX C.



NEWCASTLE-UPON-TYNE AND NORTHUMBERLAND
SANATORIUM,
BARRASFORD, NORTH TYNE.

MEDICAL REPORTS

ON

NEWCASTLE CORPORATION CASES

DURING THE HALF-YEAR ENDED 15TH JULY, 1910,

AND

HALF-YEAR ENDED 15TH JANUARY, 1911.

Newcastle-upon-Tyne :
EASEY & BEST, PRINTERS, 142, PILGRIM STREET,

BARRASFORD SANATORIUM.

MEDICAL REPORT ON NEWCASTLE CORPORATION CASES UNDER TREATMENT AT DATE OF LAST REPORT (26TH NOVEMBER, 1909), SINCE DISCHARGED.

No.	Patient's Initials.	Address.	Date of Admission.	Date of Discharge.	Days under Treatment to Date of this Report.	Gain in Weight.	Progress during Treatment and Remarks.
	J. F. G. ...	Stratford Grove West, Newcastle	9 Aug., 1909	31 Dec., 1909	144	29 lbs.	Exceptionally good progress.
	N. M. ...	Vine Lane, Newcastle	13 ,,	1 Jan., 1910	141	11 ,,	Much improvement.
	J. McK.	Joseph Street, Newcastle	21 ,,	1 ,,	133	39 ,,	Vast improvement.
	J. J. Y.	Westgate Road, Newcastle	11 Sept.,	7 ,,	118	16 ,,	Much improved. Visited Sanatorium this summer; at work, and keeps very fairly well.
	E. K. ...	Janet Street, Newcastle	11 ,,	11 ,,	122	17 ,,	Great improvement.
	G. D. ...	Rosedale Terracé, Newcastle	11 ,,	8 ,,	119	27 ,,	Much improved.
	F. G. ...	Wolseley Road, Newcastle.	20 ,,	20 ,,	122	30 ,,	Improved steadily. On leaving went to Police Convalescent Home at Harrogate. Has fairly recently returned thence to duty.
	M. N. ...	Fairless Street, Newcastle	7 Oct.,	7 Feb.,	123	8 ,,	Great improvement. Visited Sanatorium end of June. Reported well, and at full work.
	Miss M. R.	Hartington Street, Newcastle	6 Nov.	5 Mar.,	119	11 ,,	Considerable improvement.
	J. S. ...	Sycamore Street, Newcastle	13 ,,	6 Jan.,	54	26 ,,	Improved, but too short a stay; left for business reasons.

MEDICAL REPORTS ON NEWCASTLE CORPORATION CASES ADMITTED DURING THE HALF-YEAR ENDING 15TH JULY, 1910.

No.	Patient's Initials.	Address.	Date of Admission.	Date of Discharge.	Days under Treatment to Date of this Report.	Gain in Weight.	Progress under Treatment, and Remarks.
1	A. B. ...	Fisher Street, Walker	8 Jan., 1910	7 May, 1910	119	25 lbs.	Greatly improved.
2	J. T. ...	Meldon Street, Newcastle	8 " "	7 " "	119	24 "	Considerable improvement.
3	Mrs. E. R. ...	Scotswood Road, Newcastle	10 " "	2 " "	112	18 "	Considerable improvement.
4	Miss H. W. ...	Adelaide Terrace, Newcastle	12 " "	19 " "	127	16 "	Good; gained weight, and improved much.
5	G. G. ...	Trafalgar Street, Newcastle	13 " "	20 Feb., "	38	—	Developed tuberculous meningitis and died. There was slight initial improvement.
6	Miss I. T. ...	Meldon Street, Newcastle	15 " "	12 " "	28	—	Sent out as failing utterly to respond to treatment. Since dead.
7	W. Y. ...	Tamworth Road, Newcastle	19 " "	18 May, "	119	7 lbs.	Not much lung improvement.
8	M. M. ...	Joan Street, Newcastle	22 " "	21 April, "	89	19 "	Not much improvement in lung condition.
9	L. B. ...	Villa Place, Newcastle	22 " "	21 May, "	119	11 "	Laryngeal case. Much improved.
10	J. H. J. ...	Ivy Street, Newcastle	2 Feb., "	2 June, "	120	16 "	Considerable improvement.
11	Miss M. E. I. ...	Maria Street, Newcastle	2 " "	2 " "	120	14 "	A good deal improved. Laryngeal case.
12	T. H. ...	Stephen Street, Newcastle	5 " "	12 May, "	96	16 "	No real improvement in lung condition.
13	W. M. M. ...	Welbeck Road, Walker	10 " "	10 June, 1910	120	15 lbs.	Greatly improved. Since discharge has been employed on light outdoor work at Sanatorium.

MEDICAL REPORTS ON NEWCASTLE CORPORATION CASES ADMITTED DURING THE HALF-YEAR ENDING 15TH JULY, 1910.—Continued.

No.	Patient's Initials.	Address.	Date of Admission.	Date of Discharge.	Days under Treatment to Date of this Report.	Gain in Weight.	Progress under Treatment, and Remarks.
14	Miss E. D. ...	Stone Street, Newcastle	19 Feb., 1910	18 June, 1910	119	—	No gain in weight, but a good weight on admission, Condition stationary.
15	Miss N. H. S.	Portland Terrace, Newcastle	19 " "	18 " "	119	—	Expectation of improvement disappointed.
16	W. H....	Spencer Street, Newcastle	23 " "	23 " "	120	22 lbs.	Much improvement. On leaving given light outdoor employment at the Sanatorium. Left end of August to go to Australia. Steady improvement.
17	T. P. ...	Gloucester Road, Newcastle	23 " "	23 " "	120	17 "	Not much improvement.
18	Miss F. E. G.	Byker Bank, Newcastle	5 Mar., "	5 " "	92	6 "	But slight real improvement.
19	Miss I. S.	Beaumont Street, Newcastle	5 " "	5 July, "	122	2½ "	Considerable improvement. Case complicated at first with chronic pleurisy.
20	C. G. ...	Atholl Street, Newcastle	12 " "	10 June, "	90	10 "	Fair improvement.
21	Miss N. R.	Monday Street, Newcastle	12 " "	13 " "	93	15 "	Some improvement.
22	Miss C. K.	Parker Street, Newcastle	15 " "	15 July, "	122	26 "	Much improvement.
23	R. G. ...	Delaval Terrace, Newcastle	19 " "	18 June, "	91	29 "	Improving.
24	E. J. ...	Gallowgate, Newcastle	9 Apr., "	(still in)	97	12 "	Some improvement.
25	G. S. ...	Clayton Park Square, Newcastle	9 " "	12 July, "	94	13 "	

MEDICAL REPORTS ON NEWCASTLE CORPORATION CASES ADMITTED DURING THE HALF-YEAR ENDING 15TH JULY, 1910.—Continued.

No.	Patient's Initials.	Address.	Date of Admission.	Date of Discharge.	Days under Treatment to Date of this Report.	Gain in Weight.	Progress under Treatment, and Remarks.
26	Miss M. B. ...	Harle Street, Newcastle	9 Apr., 1910	9 July, 1910	91	15 lbs.	Some improvement.
27	A. P. ...	Alma Street, Newcastle	14 „ „	14 „ „	91	16 „	Considerable improvement.
28	J. B. ...	Hampstead Road, Newcastle	23 „ „	(still in)	83	15 „	Not much real improvement.
29	T. S. ...	Albion Row, Newcastle	30 „ „	(still in)	76	21 „	Considerably improved.
30	J. D. ...	Croft Stairs, City Road, Newcastle	2 May, „	2 June, „	31	8 „	No definite evidence of tuberculosis. Asthmatic condition not much improved.
31	Miss F. H. ...	George Street, Newcastle	7 „ „	(still in)	69	10 „	Not much improvement, has slight heart disease.
32	J. M. ...	Commercial Road, Newcastle	9 „ „	(still in)	67	14 „	Much improved, but has heart disease.
33	J. W. ...	Cottenham Street, Newcastle	14 „ „	11 June, „	28	—	Sent out as failing utterly to respond to treatment. Since dead.
34	W. A. I. ...	Water Street, Newcastle	23 „ „	(still in)	53	12 „	Improved.
35	J. A. ...	Malcolm Street, Newcastle	24 „ „	(still in)	52	2 „	Not much improvement.
36	Miss L. C. ...	Duns Terrace, Newcastle	28 „ „	(still in)	48	8 „	Some improvement.
37	Mrs. J. I. L.	Eighth Avenue, Newcastle	28 „ „	(still in)	48	7 „	Great improvement.
38	R. H. ...	City Road, Newcastle	28 „ „	27 June, „	30	9 „	Left for domestic reasons. Since re-admitted.
39	E. P. ...	Back Tweed Street, Newcastle	28 „ „	(still in)	48	14 „	Great improvement.

BARRASFORD SANATORIUM.

MEDICAL REPORT ON NEWCASTLE CORPORATION CASES REMAINING UNDER TREATMENT AT DATE OF LAST REPORT (15TH JULY, 1910), SINCE DISCHARGED.

No.	Patient's Initials.	Address.	Date of Admission.	Date of Discharge.	Days under Treatment to Date of this Report.	Gain in Weight.	Progress under Treatment, and Remarks.
E. J. ... J. B.	Gallowgate, Newcastle Hampstead Road, Newcastle	9 April, 1910 23 " "	6 Aug., 1910 20 " "	22 36	13½ lbs. 13½ "	Good. Left capable of work. Fair. Had slight relapse shortly before discharge.
T. S. ... Miss F. H.	...	Albion Row, Newcastle George Street, Newcastle	30 " " 7 May, "	6 " " 6 " "	22 22	23 " 12 "	Good. Able to do some work. Poor; case complicated with heart disease, however.
J. M.	Commercial Road, Newcastle	9 " "	9 " "	25	15 "	Considerable improvement, but probably only temporary; severe heart disease.
W. A. I.	...	Water Street, Newcastle	23 " "	23 Sept, "	70	24 "	Improvement more in general condition than in that of lungs.
J. A.	Malcolm Street, Newcastle	24 " "	24 Aug., "	40	1½ "	Not much improvement, persistent tendency to hæmorrhage.
Miss L. C.	...	Duns Terrace, Newcastle	28 " "	28 Sept., "	75	19 "	Considerable improvement, and able to resume her work (typewriting).
Mrs. J. I. L.	Eighth Avenue, Newcastle	28 " "	25 " "	72	14 "	Left much improved, and capable of house work.
E. P.	Back Tweed Street, Newcastle	28 " "	28 " "	75	24 "	Did very well. Left to resume work as a cabman.
Mrs. E. H. Miss C. M.	...	Larch Street, Newcastle Osborne Road, Newcastle	25 June, " 30 " "	25 " " 29 Oct., "	72 106	20 " 11½ "	Considerably improved. Did very well; capable of house work.
R. M.	Hawes Street, Newcastle	30 " "	29 " "	106	14 "	Very good progress. Left to resume work as a labourer.
Miss B. A.	...	Holly Avenue, Newcastle	9 July, " 12 Dec., "	17 Oct., " 12 Jan., 1911 }	125	9 "	A throat case. Improvement definite but slow.

MEDICAL REPORTS ON NEWCASTLE CORPORATION CASES ADMITTED FOR THE HALF-YEAR ENDING 15TH JANUARY, 1911.

No.	Patient's Initials.	Address.	Date of Admission.	Date of Discharge.	Days under Treatment to Date of this Report.	Gain in Weight.	Progress under Treatment, and Remarks.
44	W. B....	Enfield Road, Newcastle	16 July, 1910	20 Oct., 1910	96	15 lbs.	A severe case—only patched up.
45	S. S. ...	Herbert Street, Newcastle	16 „ „	3 Sept., „	49	8 „	Did well while here, but being hypochondriacal and despondent left before his time.
46	Mrs. M. F. ...	Maughan Street, Newcastle	16 „ „	18 „ „	64	9 „	Did pretty well, but left before her time owing to illness of relative.
47	Mrs. F. H. ...	Alexander Street, Newcastle	16 „ „	20 Oct., „	96	12 „	Did not make real progress.
48	Miss H. B. ...	Raby Street, Newcastle	27 „ „	27 „ „	92	17 „	Improvement great as regards general condition, but less as regards condition of lungs.
49	Mrs. E. A. E.	Tulloch Street, Newcastle	13 Aug., „	12 Nov., „	91	14 „	Did well while here.
50	R. H. ...	City Road, Newcastle	13 „ „	12 „ „	91	16 „	Progress of disease only retarded.
51	Miss L. C. ...	Ellison Place, Newcastle	16 „ „	16 „ „	92	16 „	Did very well indeed. (Since employed here as nurse.)
52	J. H. ...	Monday Street, Newcastle	20 „ „	24 „ „	96	8½ „	Disease still somewhat active.
53	J. D. ...	Robin Hood Yard, City Road, Newcastle	10 Sept., 1910	10 Dec., 1910	91	26 „	Throat case. General condition much better but throat worse. Left to do work.
54	J. J. H.	Sunderland Street, Newcastle	10 „ „	10 „ „	91	14 „	General condition greatly improved. Left to do work.
55	Mrs. L. F. ...	Bolingbroke Street, Newcastle	17 „ „	7 Jan., 1911	112	17 „	Did very well. Left before extension had expired owing to illness of children.

MEDICAL REPORTS ON NEWCASTLE CORPORATION CASES ADMITTED FOR THE HALF-YEAR ENDING 15TH JANUARY, 1911.—Continued.

No.	Patient's Initials.	Address.	Date of Admission.	Date of Discharge.	Days under Treatment to Date of this Report.	Gain in Weight.	Progress under Treatment, and Remarks.
56	Miss A. H. ...	Copeland Terrace, Newcastle	17 Sept., 1910	(still in)	120	16 lbs.	Good improvement, but still liable to slight attacks of dry pleurisy.
57	M. McC. ...	Blenheim Street, Newcastle	17 " "	10 Dec., 1910	84	7 " "	Did pretty well. Left to resume work.
58	Mrs. E. H. J.	Maughan Street, Newcastle	1 Oct., "	2 Jan., 1911	93	not weighed	Made no response to treatment—worse.
59	Miss F. M. S.	Simpson Street, Newcastle	1 " "	(still in)	106	14 lbs.	Is doing well, but there is a recent history of tuberculous disease of spine.
60	S. R. ...	Ingham Place, Newcastle	8 " "	(still in)	99	9 " "	Is now doing well.
61	Mrs. J. R. ...	Cannon Street, Newcastle	8 " "	18 Nov., 1910	41	9 " "	Did pretty well, but left soon to nurse invalid husband.
62	J. T. M. ...	Fell Street, Newcastle	22 " "	(still in)	85	14 " "	Is now doing well.
63	R. McR. ...	Beaconsfield Street, Newcastle	22 " "	(still in)	85	18 " "	Doing very well.
64	Mrs. A. P. ...	Wingrove Gardens, Newcastle	27 " "	(still in)	80	18 " "	Doing well.
65	Miss E. B. ...	Kensington Terrace, Newcastle	27 " "	(still in)	80	$\frac{1}{2}$ " "	Improved at first, but not just lately.
66	H. D. E. ...	Malcolm Street, Newcastle	29 " "	(still in)	78	25 " "	Doing very well.
67	Mrs. J. A. ...	Back Rendel Street, Newcastle	31 " "	(still in)	76	10 " "	Doing pretty well.
68	Mrs. L. M. H.	Malcolm Street, Newcastle	2 Nov., "	(still in)	74	29 " "	Doing very well.
69	F. McC. ...	Mansfield Street, Newcastle	14 " "	(still in)	62	22 " "	Doing fairly well.

MEDICAL REPORTS ON NEWCASTLE CORPORATION CASES ADMITTED FOR THE HALF-YEAR ENDING 15TH JANUARY, 1911.—Continued.

No.	Patient's Initials.	Address.	Date of Admission.	Date of Discharge.	Days under Treatment to Date of this Report.	Gain in Weight.	Progress under Treatment, and Remarks.
70	W. F. ...	Mowbray Street, Newcastle	19 Nov., 1910	(still in)	57	18 lbs.	Doing well.
71	W. B. ...	Hamilton Street, Newcastle	19 ,, ,,	(still in)	57	23 ,,	Disease very obstinate in this case. Prolonged rest seems necessary.
72	J. E. H.	St. Ann's Row, Newcastle	21 ,, ,,	(still in)	55	17 ,,	Doing fairly well.
73	R. D. ...	Bolam Street, Newcastle	3 Dec., ,,	(still in)	43	11 ,,	Not doing well—persistent pyrexia.
74	Miss M. H.	Rosedale Street, Newcastle	5 ,, ,,	(still in)	41	8 ,,	Doing very well.

Total number of days for 20 Patients for half-year ending 15th January, 1911 ...	3,680	Total ...	3,345
Less Allowance for time elapsing between the discharge of one Patient and the admission of another, 3 days each, 31 Patients ...	93		
	3,587		
Deduct Excess brought forward from 15th July, 1910 ...	68		3,519
Number of days for which treatment has not been received ...	...	...	174

SUMMARY OF CASES SUBMITTED TO MEDICAL BOARD.	
Applications received ...	57
Passed and admitted as above 31	
Rejected ...	24
Withdrawn ...	2
	57

ARMSTRONG, *Chairman.*
O. W. OGDEN, *Hon. Secretary.*

14th February, 1911.

